

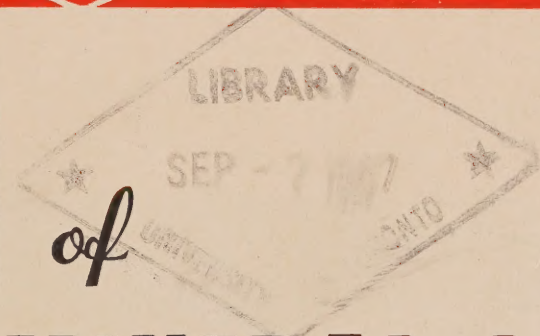
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Canada, Mineral Resources division

Mineral report

No 13. Digest of Canadian Mineral

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MINERAL REPORT 13

Digest of Mineral Laws of Canada

E. C. Hodgson



MINERAL RESOURCES DIVISION

DEPARTMENT OF ENERGY, MINES AND RESOURCES

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PREFACE

Digests of the Mining Laws of Canada were published in 1924, 1931, 1938, 1950 and 1957. Continuing demand for a work of this kind and numerous changes in mineral laws in recent years prompted the preparation of the present edition.

In preparing this summary of the mineral laws current in Canada in 1965-66, the author enlisted the assistance of the officers of the departments of government, provincial and federal, responsible for their administration. The generous cooperation offered by the Deputy Ministers of the departments concerned, and by members of their staffs, has produced a more complete and accurate account than would otherwise have been possible.

Messrs. T. C. Fawcett and W. J. Beard, of the Division's Taxation and Legislation Section, Department of Energy, Mines and Resources, rendered valuable assistance in the initial stage of the project.

It is important to bear in mind that this publication is a *digest* only. Interested persons are advised to examine the acts and regulations and to consult the responsible authorities for full and detailed information.

The Digest is presented in the hope that it will contribute to a wider understanding of and expanded interest in the mineral industry of Canada.

W. Keith Buck,
Chief,
Mineral Resources Division

Ottawa,
September, 1966.

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CHAPTER 1

INTRODUCTION

The hope of discovery of gold, silver and other minerals was a major incentive to the early explorers of North America and to the settlers who followed them.

Those who conducted the early search for minerals had little understanding of the vast wealth which would subsequently be uncovered. Even then the procedures through which rights could be acquired to search for and to take minerals were a matter of consequence.

Probably the earliest disposal of rights to minerals in that part of the continent which is now Canada occurred in 1654 when Louis XIV of France granted a concession to Nicholas Denys to mine gold, silver, copper, and other minerals on Cape Breton Island, now a part of the province of Nova Scotia.

The grant was productive through the discovery by Nicholas Denys of coal on Cape Breton in 1672. A sequel to this event, no doubt inevitable, was a proclamation in 1677 by the Intendant of New France levying a royalty of 20 sous per ton on coal mines in Cape Breton.

It is not the purpose of the Digest to trace the numerous and complex changes which have occurred in the laws governing the disposition of mineral rights since those early times, but rather to summarize the acts and regulations in effect in Canada in 1965-66 with respect to the disposition of rights, conservation practices, fees, mineral taxation and royalties, and bounties and subsidies respecting minerals. However, a brief description is given of the course by which control over minerals was assigned to the various governments in Canada from Confederation in 1867.

A voyage of discovery to what is now Canada was made from France in 1534, and the first settlement was founded by the French in 1604. The British gained control of northeastern North America in 1759. Subsequently, the separate colonies of Newfoundland, Nova Scotia, New Brunswick, Prince Edward Island, Upper and Lower Canada and British Columbia developed. The colonies gradually gained a substantial measure of self-government.

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CHAPTER 1

INTRODUCTION

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External pressures and internal problems prompted the colonies to unite. The union of Canada, Nova Scotia and New Brunswick was brought about by the British North America Act on July 1, 1867 which established Canada as a federal state. The provinces of Ontario, Quebec, Nova Scotia and New Brunswick were constituted and provision was made for the admission of the colonies of Newfoundland, Prince Edward Island and British Columbia, and the territories of Rupert's Land and the North-Western Territory.

The British North America Act allocated various powers to the federal and provincial governments. Section 109 of the Act gave full control over mineral resources within provincial boundaries to the government of the original provinces. The Section reads as follows:

"All Lands, Mines, Minerals and Royalties belonging to the several Provinces of Canada, Nova Scotia and New Brunswick at the Union, and all Sums then due or payable for such Lands, Mines, Minerals, or Royalties, shall belong to the several Provinces of Ontario, Quebec, Nova Scotia and New Brunswick in which the same are situate or arise, subject to any Trusts existing in respect thereof, and to any Interest other than that of the Province in the same."

As the colonies of British Columbia, Prince Edward Island and Newfoundland joined Confederation, control over mineral resources within their boundaries was vested in the newly constituted provincial governments.

British Columbia joined Canada in 1871 by an Imperial Order in Council. Paragraph 10 of the agreed terms of union rendered the provisions (including Section 109) of the British North America Act applicable to British Columbia.

To assist in an undertaking by the Government of Canada to construct a railway joining the Pacific with the railway system of Canada, British Columbia transferred certain Crown lands in the province, including mineral rights, to the Government of Canada by paragraph 11 of the terms of union. These lands became known as the Railway Belt and Peace River Block. The unalienated portion of the lands, including mineral rights, was re-transferred to the province of British Columbia by The Railway Belt and Peace River Block Act, 1930 which was confirmed by the British North America Act, 1930.

Prince Edward Island joined Confederation in 1873 by an Imperial Order in Council. One of the agreed terms of union rendered the provisions (including Section 109) of the British North America Act, 1867 applicable to Prince Edward Island.

The Agreement containing the terms of union between Canada and Newfoundland was approved by the Terms of Union of Newfoundland with Canada Act, 1949, and confirmed by the British North America (No. 1) Act, 1949. Control over its mineral resources was vested in the province of Newfoundland by Section 37 of the Terms of Union.

A large area of land in what is now western and northern Canada was granted by a charter of King Charles II to the Hudson's Bay Company in 1670. The Company was authorized to govern what became known as Rupert's Land. Rupert's Land and the North-Western Territory, an extensive and largely unknown area at that time, were united with Canada in 1870 by an Imperial Order in Council under Section 146 of the British North America Act, 1867.

The provinces of Manitoba, Saskatchewan and Alberta were subsequently formed out of the Territories. The remainder of the Territories is at present divided into the Yukon Territory and the Northwest Territories. The responsibility for government of

both Territories, including control over mineral rights, rests with the Government of Canada.

The province of Manitoba was formed by The Manitoba Act, 1870. Section 30 of that Act placed all ungranted lands and mineral rights in the province under the control of the Government of Canada.

The province of Saskatchewan was established by The Saskatchewan Act, 1905 and the province of Alberta by The Alberta Act, 1905. Section 21 in both acts placed control over mineral resources within each province with the Government of Canada.

A formal Agreement was reached between the Government of Canada and each of the Governments of the Provinces of Manitoba, Saskatchewan, and Alberta whereby control over mineral resources within each province was transferred to the provincial government. The Agreements were approved by The Manitoba Natural Resources Act, 1930, The Saskatchewan Natural Resources Act, 1930 and The Alberta Natural Resources Act, 1930. They were confirmed by the British North America Act, 1930.

Thus, the laws and regulations now in effect and applicable to the disposition of mineral rights, conservation measures, mineral taxation and royalties, operating and safety rules and other direct controls over mineral resources are those of the province in which the resources lie, with some minor exceptions, or of the Government of Canada if the resources lie in the Yukon Territory or the Northwest Territories.

The question has not been resolved as to whether the resources of the submerged sea bed offshore from the coasts of Canada are owned federally or provincially.

On April 26, 1965 the question of ownership of the submerged resources off the west coast of Canada was referred to the Supreme Court of Canada by Order in Council 1965-760. The reference deals only with the resources offshore from the west coast primarily because it was necessary to start with a particular area, and since exploration for petroleum was furthest advanced off the west coast, clarification of the matter was most urgently required for that region.

Titles to minerals on Crown (public) lands are vested in the federal or provincial governments. Titles to lands constituting Indian Reserves and National Parks are held by the federal government.

In all provinces of Canada some mineral rights are owned privately. The alienation of these minerals from the Crown occurred through the granting of titles at a time when mineral rights were included in titles to land, or in some cases were acquired under mineral laws which provided for the granting of mineral titles in fee simple provided that specified requirements for work, rentals and fees were met. Private owners of mineral rights may sell, lease or transfer them. However, the exploitation of minerals on freehold mineral lands is subject to the laws dealing with operating practices, conservation, and mining taxes. In some provinces title to fee simple mineral holdings may be reclaimed by the Crown where no development work has been carried out for a specified period of years.

Records of holders of mineral rights under leasing systems are maintained by the departments of government responsible for the administration of the disposition of mineral rights. Titles to freehold mineral rights, in Ontario and provinces west of it, are recorded under a Land Titles System, which is generally a modification of the Torrens System. In Quebec, titles to privately owned mineral rights are subject to the provisions of the Civil Code concerning registration of real rights.

The right to prospect, explore or exploit minerals owned by the Crown may be acquired by complying with statutory requirements. Any individual over 18 years of

age and any company authorized to do business in Canada may acquire rights to Crown owned minerals. The rights are given under permits, licences and leases under current laws.

Minerals are separate from the surface estate and rights to minerals are now granted independently from surface rights in all parts of Canada. Permission is usually granted to an operator to use surface rights, timber rights and water rights reserved to the Crown to the extent necessary for mineral production operations under prescribed conditions.

Discovery of the presence of a mineral deposit is not a requirement in the acquisition of an exclusive right to explore for minerals. Minerals to which rights apply are those contained by the vertical planes through the boundaries of the surface area specified in the permit, licence or lease.

National Parks are not open to prospecting for, development of or exploitation of minerals, except in cases where mineral claims existed prior to the establishment of the National Parks.

The acts and regulations concerned with operating and safety rules have been listed in the Digest only to complete the outline of the functions and responsibilities of the various departments of governments charged with administering mineral laws.

The details of the statutory requirements by which mineral rights may be acquired and maintained in good standing vary from province to province. Moreover, the mineral laws undergo frequent amendments and revisions to meet changing circumstances. Consequently, potential developers of minerals are advised to examine the current acts and regulations and to consult the authorities in the federal and provincial governments responsible for their administration for full and complete information. Officials to whom inquiries may be addressed are listed at the end of each chapter.

CHAPTER 2

THE GOVERNMENT OF CANADA

A number of departments and boards of the Federal Government administer acts and regulations which directly affect the Canadian mineral industry. These acts and regulations are summarized and the functions of the departments and boards are described briefly in this chapter.

A major reorganization in the responsibilities of some ministers and departments of the Federal Government was announced by the Prime Minister of Canada on December 17, 1965 and authorized by the Government Organization Act, 1966. As a part of the reorganization, the Department of Indian Affairs and Northern Development succeeded the former Department of Northern Affairs and National Resources and the Department of Energy, Mines and Resources replaced the former Department of Mines and Technical Surveys.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

The duties, powers and functions of the Minister of Indian Affairs and Northern Development relate to:

- (a) the Northwest Territories and the Yukon Territory and their resources and affairs;
- (b) Indian affairs;
- (c) Eskimo affairs;
- (d) National parks.

The Minister and the department exercise powers in the disposition of mineral rights and control over conservation, operating practices, mining taxation and royalties with respect to the Northwest Territories and the Yukon Territory comparable to the powers exercised by the government of each of the provinces within the boundaries of each province.

The Resources and Economic Development Branch of the department administers the following acts and regulations:

	<i>Page</i>
Public Lands Grants Act, R.S.C. 1952 Ch. 224 amended by 1959 Ch. 52	9
Territorial Lands Act, R.S.C. 1952 amended by 1955 Ch. 17 and 1957 Ch. 36	9
Canada Mining Regulations, P.C. 1961-325 and amended by P.C. 1962-968; P.C. 1963-1777	9, 24, 34
Canada Oil and Gas Land Regulations P.C. 1961-797 amended by P.C. 1963-408 and P.C. 1964-1614	12, 26, 35
Territorial Dredging Regulations, P.C. 1954-1920	14, 26, 35
Territorial Coal Regulations, P.C. 1954-1979 amended by 1965- 1431	15, 26, 35
Territorial Quarrying Regulations, P.C. 1957-424	15, 26, 35
Territorial Lands Regulations, P.C. 1960-1711	16
Canada Oil and Gas Drilling and Production Regulations, P.C. 1961-12	23
Yukon Quartz Mining Act, R.S. 1952, Ch. 217	16, 26, 35
Yukon Placer Mining Act, R.S. 1952, Ch. 216	18, 27, 36
Mining Safety Ordinance, Northwest Territories, R.O. N.W.T. 1956, Ch. 70	not summarized
Mining Safety Rules	not summarized
Explosives Use Ordinance	
Northwest Territories, 1963, Ch. 8	not summarized
Mining Safety Ordinance	
Yukon Territory, R.O. Y.T. 1958, Ch. 75	31
Mining Safety Rules	31
Blasting Ordinance Yukon Territory, R.O. Y.T. 1958, Ch. 10	31
Blasting Rules	not summarized
Regulations Governing Accident Prevention in the Yukon Terri- tory, Order 1963-1	not summarized
Prospector's Assistance Program	30

The Indian Affairs Branch of the department is responsible for the administration of:

	<i>Page</i>
Indian Act, 1951	20, 24, 28, 37
Indian Mining Regulations, P.C. 1961-371	20, 28, 37
Indian Oil and Gas Regulations, P.C. 1966-1271	21, 24, 28, 37

The Minister of Indian Affairs and Northern Development is responsible also for the administration of the following acts which are not summarized herein:

Northern Canada Power Commission Act, R.S. Ch. 196
 Dominion Water Power Act, R.S. Ch. 189
 National Parks Act, R.S. Ch. 189

Land Titles Act, R.S. Ch. 162
Northwest Territories Act, R.S. Ch. 331
Yukon Act, 1952-63, Ch. 53
Part III of Canada Land Surveys Act, R.S. Ch. 26

DEPARTMENT OF ENERGY, MINES AND RESOURCES

The Minister of Energy, Mines and Resources has been assigned the responsibility of administering the following acts, with the intention of bringing under one minister as many as possible of the energy and resource functions of the federal government:

	<i>Page</i>
Resources and Technical Surveys Act, R.S. Ch. 73	32
Emergency Gold Mining Assistance Act, R.S. Ch. 95	28
Explosives Act, R.S. Ch. 102	31
National Energy Board Act, 1959 Ch. 46	32
Atomic Energy Control Act, R.S. Ch. 11	33
Dominion Coal Board Act, R.S. Ch. 86	29
Coal Production Assistance Act, R.S. Ch. 173	29
Canadian Coal Equality Act, R.S. Ch. 34	30
Atlantic Provinces Power Development Act, 1957-58 Ch. 25	30
Northern Ontario Pipe Line Crown Corporation, 1956 Ch. 10	not summarized
Canada Water Conservation Assistance Act, 1952-53 Ch. 21	not summarized
International River Improvements Act, 1955 Ch. 47	not summarized
Canada Lands Surveys Act (except Part III), R.S. Ch. 26	not summarized

The Department of Energy, Mines and Resources replaced the former Department of Mines and Technical Surveys.

The new department retains the functions of carrying out scientific research and investigations related to the earth sciences. It continues to collect and publish mineral statistics, to investigate mines and mineral deposits, to carry out geological surveys of Canada, to carry out research in aid of the mining and metallurgical industry, to manage astronomical observatories, and to prepare and publish topographical, geological and geographical maps.

The responsibilities of the department have been greatly expanded with respect to the development of national policies and programs for energy, mines and minerals, water and other resources. It now serves as an advisory, coordinating and developmental authority with reference to all forms of energy and energy sources. Moreover, the department has a prime responsibility in the resolution of the complex problems related to water as a resource and to water pollution.

The department administers the following acts:

	<i>Page</i>
Resources and Technical Surveys Act, R.S. Ch. 73	32
Emergency Gold Mining Assistance Act, R.S. Ch. 95	28
Explosives Act, R.S. Ch. 102	31
Canada Water Conservation Act, 1952-53 Ch. 21	not summarized
International River Improvements Act, 1955 Ch. 47	not summarized
Canada Lands Surveys Act (Except Part III) R.S. Ch. 26	not summarized

NATIONAL ENERGY BOARD

The Board administers the National Energy Board Act which is summarized later in this chapter.

The Board is empowered to advise the Minister of Energy, Mines and Resources on matters over which the Parliament of Canada has jurisdiction relating to the exploration for, production, recovery, transmission, transportation, sale, purchase, etc., of energy and sources of energy within and outside of Canada.

The Board has the authority to control construction of interprovincial pipe lines for the transmission of hydrocarbons and international power lines, to fix tolls charged by pipe line companies and to control the export and import of natural gas and the export of electric power.

ATOMIC ENERGY CONTROL BOARD

The Board administers the Atomic Energy Control Act which is summarized later in this chapter.

The Board has wide powers over the production, manufacture, sales and use of radioactive materials. Any person who finds a mineral deposit containing uranium or thorium is required to report his findings to the Director, Geological Survey of Canada, Department of Energy, Mines and Resources, Ottawa. Exploration (beyond the stage of prospecting) and mining of radioactive mineral deposits may be undertaken only with the permission of the Atomic Energy Control Board.

DOMINION COAL BOARD

The Board advises the Minister of Energy, Mines and Resources on all matters relating to the production, importation, marketing, distribution and use of coal in Canada. The Board is responsible for administering coal transportation subventions and other assistance to the coal mining industry.

The Board administers the following Acts:

	<i>Page</i>
Dominion Coal Board Act, R.S. Ch. 86	29
Coal Production Assistance Act, R.S. Ch. 173	29
Canadian Coal Equality Act, R.S. Ch. 34.....	30

DEPARTMENT OF FINANCE

The Department of Finance was established by an Act Respecting the Department of Finance (S.C. 1869, Chapter 4—now the Financial Administration Act, R.S.C., 1952, Chapter 116, as amended).

The Minister of Finance has the supervision, control, and direction of the financial affairs and public accounts, revenues and expenditures of Canada.

The policies adopted by the Minister of Finance are of major importance, of course, to the mineral industry as they are to all industries in Canada. The provisions of the Income Tax Act and Regulations, of the Customs Tariff and of the Excise Tax Act are reflections of such policies in part.

The Royal Canadian Mint in Ottawa is a branch of the Department of Finance. As part of its functions the Department of Finance administers:

Gold Export Act, 1932 Ch. 33	Page 33
Currency, Mint and Exchange Fund Act, R.S.C. 1952 Ch. 315	33
Gold Bullion Regulations, P.C. 1959-100 amended by 1961-532 and 1962-1071	34

DEPARTMENT OF NATIONAL REVENUE

The present Department of National Revenue was first established under the provisions of The Department of National Revenue Act (S.C., 1926-27, Chapter 34—now the Department of National Revenue Act, R.S.C., 1952, Chapter 75).

The Taxation Division administers the Income Tax Act and Regulations.

The Customs and Excise Division administers the Customs Tariff and the Excise Tax Act.

A description of the provisions of these acts and regulations which are of particular interest to the Canadian mineral industry is available elsewhere and is not dealt with in this Digest.

Disposition of Mineral Rights

THE PUBLIC LANDS GRANTS ACT

The act applies to all lands belonging to the Crown in the right of Canada including military reservations but excluding Indian Reserves.

The act authorizes the making of regulations to govern the sale or lease of public lands, including mines and minerals.

TERRITORIAL LANDS ACT

The act authorizes the making of regulations to govern the disposition of public lands, including mines and minerals in the Yukon and Northwest Territories.

Surface rights and mineral rights are separated for purposes of disposal.

The Territories have been divided into mining districts as listed below. The mining recorder for each district is located at the centre indicated.

Yukon Territory:

Dawson Mining District	Dawson
Mayo Mining District	Mayo
Whitehorse Mining District	Whitehorse
Watson Lake Mining District	Watson Lake

Northwest Territories:

Nahanni Mining District	Watson Lake
Mackenzie Mining District	Yellowknife
Arctic and Hudson Bay Mining District	Ottawa

Canada Mining Regulations

The regulations apply to all lands forming part of Canada but not within any Province or the Yukon Territory.

Mineral is defined as all deposits of gold, silver, and other naturally occurring substances that can be mined, excepting soil, limestone, gravel, peat, coal, oil, helium, natural gas, or other related hydrocarbons.

Mineral rights are issued in the form of prospector's licence, prospecting permits, and leases.

Prospector's Licence

Any individual 18 years of age or over and any joint stock company authorized to do business in Canada may obtain a prospector's licence upon payment of the prescribed fee.

All licences expire on March 31. Only one licence may be held at a time. A licence is not required to hold a mineral claim.

A licence held by a company does not entitle shareholders or employees to stake claims. But an individual who holds a licence may locate claims on behalf of a company.

The holder of a prospector's licence has the right to enter, stake, prospect and develop mineral lands. Recorded mineral claims, and lands occupied by buildings or otherwise reserved, are excluded.

The holder of a prospector's licence may stake in one year up to 36 mineral claims within the area shown on a mineral claim staking sheet. A mineral claim staking sheet is based on the National Topographical System and is the map of an area having a width north to south of 15 minutes of latitude and a length east to west of either 30 minutes or one degree of longitude depending on whether the area lies south or north of 68 degrees north latitude.

The area of a claim may not exceed 51.65 acres. The sides of the claim may not exceed 1,500 feet and should be as nearly as possible astronomic north-south and east-west.

The claims are to be marked with four posts where possible. A single post not less than 2 inches in width may be used for common corners. In treeless territory the required inscription may be made on paper, placed in a water-proof metal container and secured in place by a mound of earth or rock, or in the apex of a standing tripod of wooden stakes. Numbered metal tags issued by a Mining Recorder must be attached to the posts or placed in the containers at the time of staking.

Claims must be recorded within 60 days if they lie in the Arctic and Hudson Bay Mining District or north of 65 degrees north latitude in other mining districts. Otherwise they must be recorded within 40 days.

The holder of a recorded mining claim may retain it for not more than 10 years by performing representation work to the value of \$100 each year. Representation work may consist of trenching, shaft sinking, underground work, drilling, and geological, geophysical and geochemical investigations and engineering evaluations. Not more than 18 contiguous claims may be grouped for purposes of representation work.

Geological, geochemical and geophysical data are kept confidential for a period of three years after the recording of such representation work reports.

Payment in lieu of work at the rate of \$100 per claim will be accepted, but for one year only. When a claim lapses it shall be open for relocation at noon of the day next following the expiration of 30 days from the lapsing date.

Prospecting Permits

Application may be made for a prospecting permit in remote areas. The permit grants the exclusive right for a period of 3 years to prospect for and develop minerals within the permit area.

A prospecting permit contains the area shown on a mineral claim staking sheet.

Application for a permit may be made between January 1 and March 15 in any year. Permits are issued only between March 16 and April 1 in any year. The application must be accompanied by a fee and a performance bond.

The applicant must spend an amount at least equal to 10¢ per acre in the first year, 20¢ per acre in the second year and 40¢ per acre in the third year on work in the permit area. Expenditures in excess of requirements may be carried over to the ensuing year or applied to claims staked within the permit area.

The holder of a valid permit may stake 90 claims in the permit area in the first year, in the second year the difference between 270 claims and the number of claims staked in the first year, and in the third year the difference between 450 claims and the aggregate number of claims staked in the first and second years.

A permit holder must release an area of not less than one-quarter of the permit area at the end of the first year, and may not retain more than half the permit area after the end of the second year. The area retained need not be in a contiguous parcel.

Once the rights under a permit have expired, the holder may not stake and record claims within the area for a period of one year.

Reports submitted by the holder of an area are kept confidential until 3 years after the expiry of the permit.

Disputes

Decisions of the mining recorder may be appealed to a judge of the Territorial Court.

Lease of Mineral Claims

A lease of a mineral claim may be obtained upon application if sufficient representation work has been done to maintain the claim in good standing for 5 years, and if such work included at least 3 years of physical work such as trenching, shaft sinking, underground work or drilling. A survey of the claim is required.

The holder of a mineral claim must apply for a lease if at any time the production of ore from a mineral claim exceeds 5 tons per day, except for testing purposes.

The term of a lease is 21 years and is renewable.

The annual rental is 25¢ per acre during the first 21-year lease period and 50¢ per acre during periods of renewal. This rental is reduced by the amount of royalty paid on production, and by the amount of expenditures on development work approved by the department.

A lease entitles the holder to all minerals found on the lease, but only to those surface rights necessary for the purpose of prospecting, exploring, developing and operating mines.

Leases are granted only to Canadian citizens over 18 years of age or to companies incorporated in Canada. A lease will not be issued to a corporation unless

- (1) at least 50 per cent of the issued shares of the corporation are beneficially owned by persons who are Canadian citizens, or
- (2) the shares of the corporation are listed on a recognized Canadian stock exchange and Canadians have an opportunity of participating in the financing and ownership of the corporation, or

- (3) the shares of the corporation are wholly owned by a corporation that meets the qualifications outlined in (1) or (2).

Iron ores produced from islands in Hudson Bay may be exported. All other ores and minerals must be treated or refined within Canada to the stage of refined metal or other product usable without further treatment.

Right of Entry

A prospector may enter land on which the surface rights are held by another person only with the written permission of the owner and of the mining recorder.

Canada Oil and Gas Land Regulations

The regulations were made under the Territorial Lands Act and the Public Lands Grants Act. They apply to Canada lands, which are defined as being all lands owned by the Crown in the right of Canada not within any province, including both the Yukon Territory and the Northwest Territories.

Mineral rights are issued by the department in the form of exploratory licences, exploratory permits and oil and gas leases.

Oil and gas lands are divided into grid areas, sections and units. The division is based on the National Topographical System.

A grid area south of latitude 70 degrees has a width north to south of 10 minutes of latitude and a length east to west of 15 minutes of longitude. A grid area north of latitude 70 degrees has a length east to west of 30 minutes of longitude.

Each grid area is divided into 100, 80 or 60 sections depending on the latitude at which the area lies. Each section is divided into 16 units. A target area is 600 feet square and is located in the centre of a unit.

A survey of an area may be required, and the survey may be made only by a Dominion Land Surveyor.

Exploratory Licence

Licences may be issued upon payment of a fee of \$25 to any person who has reached the age of 21 years or to a company incorporated or licenced to do business in Canada.

Licences authorize the holder to search for oil and gas on Crown lands by geological or geophysical examinations, aerial mapping and investigation of the subsurface.

Licensees may not drill a hole deeper than 1,000 feet without specific permission, nor enter on lands held by another person without consent of the occupier or an order for entry from the arbitrator.

Exploratory Permits

Permits may be issued to any person who has reached the age of 21 years or to a company incorporated or licenced to do business in Canada. A permittee must also hold a licence to carry out exploratory work on the permit area. The number of permits one person may hold is not limited.

A permit covers a grid area or one-half a grid area.

The primary term of a permit is 3, 4 or 6 years depending on its location. A permit

may be renewed six times, each time for a period of one year. Subsequent renewals are at the discretion of the Minister.

Exploratory permits may be disposed through application or through public tender. Lands granted by application are restricted to those that have not previously been held under permit or lease or have been offered for public tender with no offer of purchase made. Tenders are called for in the case of permits on lands which have been returned to the Crown through expiry, cancellation or surrender of permits or leases.

A permittee must make a deposit to the full amount of the work requirement of a permit at the commencement of a work-permit or renewal period in an amount increasing from 5¢ in the early part of the permit term to 50¢ per acre in the later part. A portion of the deposit equal to allowable exploratory expenditures carried out on the permit area is returned to the holder of the permit.

Exploratory work off the permit area may be allowed if it is shown that the information obtained is of value with respect to the permit area. Road building, geophysical examination or a contribution to a well drilled outside the permit area may be allowed if prior approval is obtained. In determining allowable expenditures permit areas may be grouped if contiguous or if they lie within a radius of 100 miles or if the area does not exceed 2,500,000 acres.

The amount expended on drilling a well designated as an exploratory deep test well is allowable at twice the amount actually expended.

A report is required before exploratory work is begun, giving detail of the program. Progress reports are also required at stated intervals and at the end of the permit period and must provide full information on geological and geophysical findings and copies of aerial photographs.

Oil and Gas Leases

Leases may be selected by a permittee from his permit area or may be acquired by way of public tender in the case of lands that have been returned to the Crown through expiry, cancellation or surrender of permits or leases.

Leases may be granted by application accompanied by a fee of \$10 only to Canadian citizens over 21 years of age or to companies incorporated in Canada. A lease will not be issued to a corporation unless

- (1) at least 50 per cent of the issued shares of the corporation are beneficially owned by persons who are Canadian citizens,
- (2) the shares of the corporation are listed on a recognized Canadian stock exchange and Canadians have an opportunity of participating in the financing and ownership of the corporation, or
- (3) the shares of the corporation are wholly owned by a corporation that meets the qualifications outlined in (1) and (2).

Commercial production of oil and gas can only be carried out if the lands involved are under lease. A permittee may acquire leases covering up to 50 per cent of the area within a permit, and may acquire leases covering the remainder by paying an extra royalty on additional leases.

The rental is 50¢ per acre for the first year of an oil and gas lease, and one dollar per acre for each subsequent year. The rental payable may be reduced by as much as one half, and the amount of the reduction is the cost of allowable expenditures on

exploratory work on the lease area. In years in which commercial production has been attained, the rental is reduced by the amount of royalty paid in the preceding year.

The term of a lease is 21 years. A lease in good standing is renewable for successive terms of 21 years if commercial exploitation has begun or the area is capable of producing oil or gas.

Information To Be Confidential

Topographical information, maps of permit area and information on the presence of minerals other than oil and gas submitted in required reports may be released at any time.

Information submitted on a development well may be released 30 days after its completion, but only after 2 years in the case of an exploratory well.

Geological and geophysical information may be released only 2 years after the expiry, surrender or cancellation of a permit or lease.

Right of Entry

The holder of a permit or lease may enter upon the Canada lands described in his permit or lease and use such part of the surface as may be necessary for the purpose of carrying out exploratory work in the case of a permit and exploratory work or production in the case of a lease.

In the case of patented lands, the holder of a permit or lease may enter lands where the surface rights are held by another person if the consent of the holder or owner of the surface rights and the occupier of the land is obtained. If such consent is withheld, the holder of the permit or lease may obtain an order for entry from the arbitrator.

The arbitrator is the magistrate of the district in which the lands lie. The arbitrator after a hearing will determine the compensation to be awarded to the holder of the surface rights. When the applicant has posted a satisfactory bond, the arbitrator will issue an order granting entry to the applicant.

An appeal from decisions of the arbitrator may be made to the superior court for the district in which the land is located. The decision of the superior court is final.

Territorial Dredging Regulations

The regulations apply to the Yukon Territory and the Northwest Territories.

The word mineral for purposes of these regulations is stated to include every natural substance including gold and silver that may be recovered from the submerged bed of a river by the process commonly known as dredging but does not include peat, bitumen, oil shales, clay, sand and gravel.

Any person may stake a portion of a river not exceeding 10 miles in length and apply for a lease on the staked portion. The width of the lease is from natural bank to natural bank of the river bed. A fee of \$5 must accompany the application. Two stakes only are required, both on the same side and above the highwater mark of the river.

Only one lease will be issued to one person. A survey may be required. The term of a lease is 15 years, and is renewable at the discretion of the Minister.

Work with one dredge must commence within 3 years of the issue of the lease. In each year of dredging at least 20,000 cubic yards of sand and gravel must be treated.

The rental for the first year is \$100 per mile leased. In subsequent years the annual rental is \$10 per mile leased.

The lessee may obtain permission to cut timber necessary for dredging operations. The free navigation of the river must not be obstructed by tailings.

Territorial Coal Regulations

The regulations apply to the Yukon and Northwest Territories.

Coal mining rights are disposed through the staking of a location for a permit to mine coal for domestic purposes, or for a lease.

Any person 18 years of age or over may stake a location for himself or by proxy on territorial lands.

Certain lands may not be staked, such as municipalities, Indian Reserves, national parks or land held for mining purposes. Where the surface rights are owned or occupied by another person, the staker may only stake claims after obtaining the consent of that person and posting a bond satisfactory to the recorder.

The area staked for a permit or lease is to be in the form of a rectangle with the length not greater than four times the width. The area of a location for a permit may not exceed one acre, or for a lease 640 acres.

The location is to be marked by a post or a metal cylinder in a mound of stone at four corners. Boundaries of the location are to be marked by blazing trees or by cairns of stone. The location must be recorded within 15 days if situated within 10 miles of the recording office. One more day is allowed for each additional 10 miles.

Lease

The holder of a location may apply for a lease. An application fee of \$5 is required.

A lease gives the holder the right to commercially exploit coal deposits. The term of the lease is 21 years and is renewable. The annual rental is one dollar per acre.

A lessee is required to begin mining coal within one year after he has been notified by the Minister to do so. Notification may be given after one year of the lease term has elapsed. The Minister may specify the amount of coal to be mined but not a greater amount than 10 tons per acre per annum.

A person may hold only one lease at a time acquired by location. Leases may be assigned or transferred only with the written consent of the Minister.

Permit

The holder of a location may apply for a permit. A fee of one dollar is required with the application.

A permit gives the holder the right to mine coal for domestic purposes. Permits expire on March 31 each year. A royalty of 25¢ per ton is levied.

Right of Entry

The holder of a coal mining lease or permit is entitled to use such of the surface as is necessary for efficient coal mining operations in the opinion of the Minister.

In the case of a lease the lessee must compensate the owner of the surface rights for any damage caused.

Territorial Quarrying Regulations

The regulations apply to the Yukon and Northwest Territories, and dispose of mining rights on territorial lands to limestone, granite, slate, marble, gypsum, marl, gravel, loam, sand, clay, volcanic ash or stone.

The area on which a lease is desired may be staked by any person. The area must not exceed 20 acres in the case of loam, and 160 acres for the other specified substances. The land is to be staked with four posts or rock cairns in rectangular form with length not greater than twice the breadth.

An application for lease accompanied by a fee of \$5 is to be made within 30 days of staking.

The term of a lease is 10 years. A renewal for a 10-year period may be granted. The annual rental is one dollar per acre.

A territorial land agent may issue a permit without fee or royalty to a resident of the Territories to take 15 cubic yards of loam in any calendar year for his own use.

Entry to lands held as a recorded mineral claim or under an oil or gas permit or lease may be made only with the permission of the Minister.

Territorial Lands Regulations

The regulations apply to the Yukon Territory and the Northwest Territories, and authorize the Minister to lease or sell territorial lands.

On land leased under the regulations the rights to all minerals are reserved to the Crown. The rights to that part of the surface necessary to the working and extracting of minerals are also reserved.

YUKON QUARTZ MINING ACT

The act applies only to the Yukon Territory. The act defines a mineral as all deposits of gold, silver, platinum, iridium, or any of the platinum group of metals, mercury, lead, copper, iron, tin, zinc, nickel, aluminum, antimony, arsenic, barium, bismuth, boron, bromide, cadmium, chromium, cobalt, iodine, magnesium, molybdenum, manganese, phosphorus, plumbago, potassium, sodium, strontium, sulphur, or any combination of these elements, quartz, metallic oxides and silicates and the ores of radium, tungsten, titanium and zirconium, asbestos, emery, mica, mineral pigments, corundum and diamonds.

Limestone, marble, clay, gypsum, or any building stone when mined for building purposes, earth, ash, marl, gravel, sand and any element forming a part of the agricultural surface of the land are not considered as minerals.

Any person 18 years of age or over may prospect and locate mineral claims on Crown lands. Claims may be staked by proxy. A person is entitled to locate in one year only seven mineral claims within 10 miles from any other mineral claim located by him personally or by proxy.

Mineral Claims

The sides of a claim may not exceed 1,500 feet in length. The angles between sides are to be right angles except where a previously located claim forms one or more of the boundaries. The area of a full claim is 51.65 acres.

The claims are to be marked by two posts, placed at the extremities of the location line. The location line may lie in any direction, but may not have a horizontal length greater than 1,500 feet.

The location line may form one of the sides of a mineral claim, or part of the claim may lie on either side of the location line. The distance to the ends of the claim to left and to right, totalling not more than 1,500 feet, are to be marked on No. 1 post.

The location line must be marked by the blazing of trees in wooded areas and by earth or rock monuments in barren areas.

Claims must be recorded within 15 days if they lie within 10 miles of the district recording office. One additional day is allowed for every additional 10 miles.

In the event that claims are located more than 100 miles from the recorder's office, five or more locators are authorized to appoint one of their numbers as an emergency recorder.

Metal tags supplied by the mining recorder must be affixed to claim posts as soon as possible after the claims are recorded.

The locator of a claim may hold it for one year after recording. He may continue to hold the claim providing he does \$100 of representation work on the claim each year. Payment in lieu of work is accepted. The Minister may grant relief from annual representation work.

The recorded owner of a mineral claim may be required to have a claim surveyed. The cost of the survey is accepted as representation work for the year in which the survey is made.

Geological investigations, aerial reconnaissance and similar operations will be accepted as representation work only in the first 3 years after the recording of the claim.

Work done on a claim in excess of \$100 in a year may be applied to subsequent years.

Up to 16 contiguous claims may be grouped for purposes of representation work.

The owner of a mineral claim is entitled to a certificate of improvement after he has done representation work to the value of \$500 or has paid \$500 to the mining recorder in lieu of work, if he has found a vein or lode within the limits of the claim and has given the required notices of the intention to apply for a certificate of improvement.

The holder of a mineral claim for which a certificate of improvement has been granted is entitled to a lease on the claim.

Leases on Mineral Claims

The holder of a mineral claim held by representation work, or the holder of a lease on a mineral claim is entitled to work and exploit the minerals found on the claim.

The term of a lease is 21 years and is renewable.

The rental for a mineral claim for a 21-year lease is \$50. The rental for a renewal period of 21 years is \$200.

A lease entitles the holder to surface rights on the leased area only to the extent necessary for efficient and miner-like operations on the minerals contained. The holder is also entitled to cut timber not already disposed of so far as is necessary in the working of the claims under lease.

Iron and Mica Locations

The Minister may grant upon application a location with rights to iron and mica only. The location must have the form of a square and not exceed 160 acres in area. The grant does not include surface rights.

The amount of representation work required annually or the payment in lieu is double the amounts prescribed for mineral claims.

Right of Entry

A person may enter lands the surface rights of which are owned or lawfully occupied by another for prospecting, locating or mining purposes only after he has given adequate security, to the satisfaction of the mining recorder, for any damage he may cause.

Disputes

The amount of compensation for damage to surface rights in case of dispute or the interest in mineral rights of disputants is determined by a court having jurisdiction in mining disputes.

YUKON PLACER MINING ACT

Placer mining is defined to include every method of working whereby earth, soil, gravel or cement may be removed, washed, sifted or refined for the purpose of obtaining gold or such other minerals or stones, but does not include working rock in place.

Any person 18 years of age or over may prospect, locate claims and mine for gold and other precious metals and stone on any lands in the Yukon Territory except lands in a town, occupied by a dwelling, occupied for placer mining or in an Indian Reserve.

Claims

Placer claims are staked by two posts. For creek claims the posts are placed on the base line of the creek. For claims situated elsewhere than on the creek the two posts are placed on a line parallel to the base line of the creek or the general direction of the creek or river.

Claims are rectangular in form, with the end boundaries at right angles to the base line. The length of claims along the base line may not exceed 500 feet except in the case of a discovery claim. Creek claims have a width of 2,000 feet, 1,000 feet on either side of the base line. Claims elsewhere than on a creek have a width of 1,000 feet.

A person who has a claim recorded in his name may not locate another claim within the valley or basin of the same creek or river within 60 days of the recording of the previous claim.

The person locating the first recorded claim on a creek or bench is entitled to stake one discovery claim 1,500 feet in length. Proxy staking of not more than three claims each in the names of not more than two other persons is permitted in one year.

Placer claims must be recorded within 10 days if located within 10 miles of the recorder's office. An extra day is allowed for each additional 10 miles.

A person may obtain written permission prior to a prospecting trip to record claims within a period of 6 months after staking.

In the event that claims are located more than 100 miles from the recorder's office, five or more locators are authorized to appoint one of their number as an emergency recorder.

Metal tags supplied by the mining recorder are to be affixed to the claim posts as soon as possible after recording.

A person who has staked a claim may obtain a grant of the claim for one or 5 years and to renewals from year to year by paying a prescribed fee and doing work on the claim annually to the value of \$200. The value of work in excess of \$200 in one year, up to \$800, may be carried over to subsequent years.

A grant carries the exclusive right to work the claim and to build a residence on it. The grantee has the right to cut timber on the claim necessary in the operation of the claim.

A maximum of 10 contiguous claims may be grouped for work requirements.

Lease to Prospect

A lease to prospect for purposes of placer mining may be granted on application. Only one lease may be held at a time.

The location is marked by two-post staking in the same way as placer claims. Where the tract includes abandoned ground the length may not exceed 5 miles. Where the tract does not include mining claims previously staked or recorded the length may not exceed one mile.

The term of a lease is one year, renewable for 2 additional years on abandoned ground. A lease on virgin territory may not be renewed. The rental is at the rate of \$25 a mile annually. Work on the tract is required at the rate of \$1,000 a mile annually.

Right of Entry

A person may enter lands the surface rights of which are owned or lawfully occupied by another, for prospecting, locating or mining purposes only after he has given adequate security, to the satisfaction of the mining recorder, for any damage he may cause.

The operator of a dredge may apply to the Commissioner of the Territory for permission to move the dredge through a mining claim owned by another person. The Commissioner may grant permission for such operation, but will require a deposit of a sum of money large enough to ensure payment to the owner of the claim for any damage caused by passage of the dredge. Any gold recovered from the claim in the operation necessary to the passage of the dredge is the property of the owner of the claim.

Water Rights

The owner of a claim is entitled to use that part of the water naturally flowing past his claim, which is not already lawfully appropriated, as may be necessary to the working of the claim.

A water grant may be made by a mining recorder which gives the applicant the right to take water from any stream or lake. It also conveys the right of entry for constructing or repairing ditches and flumes, provided that the applicant has posted a bond securing payment for damage caused by such construction.

Disputes

The amount of compensation for damage to surface rights in case of dispute is determined by a court having jurisdiction in mining disputes.

Disputes between owners of claims or lessees of locations with respect to the distribution of water, encroachments, to dumping or to the amount of compensation to be paid for damage caused by any drain are determined by a board of arbitrators.

The board consists of an arbitrator appointed by each party to the dispute. An additional arbitrator may be appointed by the arbitrators, or failing agreement by the Commissioner, to prevent deadlock through an even number of arbitrators.

The judgment of the board may only be appealed on a question of law to the territorial court.

THE INDIAN ACT

The rights to minerals on an Indian Reserve may be disposed, in general, only after the rights have been surrendered to the Crown by the band residing on the reserve.

The act empowers the Governor in Council to make regulations for the disposition of surrendered mineral rights in a reserve. However, the Indian Mining Regulations do not apply to Indian Reserves in British Columbia.

The British Columbia Indian Reserves Mineral Resources Act ratifies an agreement between Canada and British Columbia providing for the disposition of "precious and base" minerals in an Indian Reserve, which have been surrendered pursuant to the Indian Act. Such surrendered minerals are administered and disposed under the laws of British Columbia, but prospecting or right of entry to any Indian Reserve requires permission from both the Indian Agent and the British Columbia Gold Commissioner who have jurisdiction in the area of the reserve.

The rights to sand, gravel, clay and other non-metallic substances on a reserve may be disposed by the Minister without a surrender provided that the consent of the council of the band has been obtained.

Indian Mining Regulations

The holder of mining rights is required to comply with the acts and regulations of the province where the land is situated which do not conflict with these regulations.

The minerals to which the regulations apply are defined as naturally occurring metallic and non-metallic minerals, including gold and silver, and rock containing such minerals but does not include placer deposits, peat, petroleum, natural gas, clay, earth, ash, marl, gravel, coal, limestone, sand or any other element which forms a portion of the agricultural surface of the land.

Technical information submitted by the holder of a permit or lease as required by the regulations, may be released only with the consent of the permittee or lessee until the permit or lease is terminated.

Licence

A licence is required to prospect for minerals on Indian lands which allows exploratory work including drilling which does not unduly damage the surface of the land. A licence allows appraisal only and does not grant any prior right in acquiring a permit or lease.

Permit

A permit may be disposed by public tender. It gives the right to explore and develop minerals in the permit area. Minerals may be produced and shipped in test quantities only.

The term of a permit is one year. It is renewable for three further periods of one year each. The Director may grant further renewals to allow completion of exploratory work.

The rental is 50¢ per acre during the first year of the permit and one dollar per acre for each of the next 3 years of renewal. The rental is \$2 per acre in succeeding years. A security deposit of one dollar per acre is required.

Assessment work to value of one dollar per acre is required for each year of the permit or renewal. The holder may pay cash in lieu of work.

Lease

The holder of a valid permit is entitled to a lease not exceeding 1,500 acres from the permit area. Leases may be disposed of by public tender.

The annual rental is \$2 per acre. The term of a lease is 10 years, and is renewable for further periods of 10 years so long as the lease is productive. A security deposit is required in an amount set by the Director.

Assessment work during the initial term and renewals of a lease is required at a rate of one dollar per acre annually. Payment in lieu of work is accepted. Work in excess of the required amount in a year may be carried forward for as long as 10 years. Assessment work is not required on a leased area for any year during which it has yielded royalties.

Right of Entry

Where a permit or lease holder proposes to undertake work other than exploratory work he may be required to negotiate with the Indian Band Council for a surface lease.

Appeals

Appeals from decisions by the Director or the Supervisor may be made to the Minister, whose ruling is final.

Indian Oil and Gas Regulations

The holder of oil and gas rights is required to comply with the acts and regulations of the province where the land is situated which do not conflict with these regulations.

Permission may be granted to a person to conduct exploratory work for the purpose of making a geological appraisal on a reserve provided that he submits an acceptable program of work and guarantees to compensate for damage to the surface. He must mark test and shot holes and submit factual information from test holes. Holes may be drilled only to a depth of 500 feet or to a depth permitted by the appropriate provincial authority.

Available oil and gas rights are disposed by public tender as an oil and gas permit, an oil and gas lease, a gas licence, or a gas lease.

Oil and Gas Permit

A permit grants the right to drill for oil and gas and to do exploratory work within the area of the permit. It also grants the exclusive right to take up leases on the permit area.

The number of permits one person may hold is not limited. The term of a permit is one year. The annual rental is 20¢ per acre.

Extensions of the permit for one year at a time may be granted. The rental for the first extension is 30¢ per acre per year, for the second extension is 4¢ per acre per month, and for subsequent extension is 6¢ per acre per month.

Reports are required giving full information on geological and geophysical findings.

If oil is discovered the permittee must apply for a lease within 90 days, or before starting to drill a second well within 4½ miles of the discovery well.

If gas is discovered the permittee must apply for a lease within 6 months, or before starting to drill a third well within 4½ miles of the discovery well.

Oil and Gas Lease

The holder of a valid oil and gas permit is entitled to select up to one-half of the permit area as a lease or leases. A lease grants the right to produce the oil and gas within the leased area.

Leases are in the form of a square or rectangle having an area not less than 160 acres. A lease in the form of a square may not have an area greater than 9 square miles, or in the form of a rectangle not greater than 8 square miles. The length of the rectangle may not be greater than twice its width.

Leases must be separated by a distance of not less than a mile unless they corner. The boundaries of a lease are to conform to legal survey boundaries where possible.

The term of a lease is 10 years, renewable for further terms of 10 years as long as the lease is capable of producing oil and gas in paying quantities, or at the discretion of the Chief Officer.

The annual rental is one dollar per acre with a minimum of \$100. Expenditures on exploratory work may be applied to reduce the rental by 50 per cent for each of the first two years of the lease.

Upon completion of a producing well, the lessee may be required to begin the drilling of a further well within 90 days.

A lessee may start drilling a well or pay compensatory royalty if oil or gas is found on non-Indian lands adjoining his lease. The compensatory royalty for the first year is half of the royalty that would be payable if the adjoining discovery well were on his lease, and for subsequent years is the full royalty.

Gas Licence

A licence grants the right to drill for gas and to do exploratory work within the area of the licence. It also grants the exclusive right to take up leases on the licence area.

The number of licences one person may hold is not limited. The term of a licence is one year. The annual rental is 10¢ per acre.

Extensions of the licence for one year at a time may be granted. The rental for the first extension is 15¢ per acre per year, for the second 2¢ per acre per month and for subsequent extensions 3¢ per acre per month.

A licensee is required to begin drilling within 6 months of the date of issue of the licence and to commence the drilling of another well within 90 days of the completion of each well during the term of the licence.

Reports are required giving full information on geological and geophysical findings.

Gas Lease

A lease grants the right to produce gas from the leased area only from the stratigraphic zones stated in the lease.

The holder of a gas licence is entitled to a lease only if he has drilled a well capable of producing gas in paying quantities.

The area of the lease is dependent upon the footage drilled and its depth. The licensee is entitled to 640 acres of leased area from the licence area for each 600 feet of hole drilled to a depth of less than 3,000 feet and for each 800 feet of hole drilled to a depth greater than 3,000 feet.

The boundaries of a lease are to conform to legal survey boundaries where possible.

The term of a gas lease is 10 years, renewable for further terms of 10 years as long as the lease is capable of producing gas in paying quantities.

The annual rental is 50¢ per acre. The rental may be reduced to 25¢ per acre if a market is not available. Expenditures incurred on the drilling of wells during the licence period may be applied to reduce rentals during the first two years of the lease.

Where the oil is discovered during the drilling of a well on a gas licence or gas lease the holder is entitled to an oil and gas lease provided that an area three times the size of the oil and gas lease is surrendered out of the gas licence or gas lease.

Upon completion of a producing well, the lessee may be required to begin the drilling of a further well within 90 days.

A lessee may start drilling a well, surrender his rights to the productive strata or pay compensatory royalty if gas is found on non-Indian lands adjoining his lease. The compensatory royalty for the first year is half of the royalty that would be payable if the adjoining discovery well were on his lease, and for subsequent years is the full royalty.

Right of Entry

A permittee, licensee or lessee must apply to the Superintendent of the Indian Agency within which the reserve is situated for a surface lease for the well site, access road and incidental purposes. An initial payment is required to cover compensation for damage to the surface, inconvenience and disturbance as well as the rental for the first year.

The amount of initial payment is a matter for negotiation with the Band Council of the Indian Reserve.

Appeals

Should the applicant fail to reach agreement with the Indian Band Council on the amount of compensation to be paid for use of the surface, the matter may be settled by the Minister. Any person may appeal to the Minister any decision of the Chief Officer.

Oil and Gas Conservation

Canada Oil and Gas Drilling and Production Regulations

The regulations were made pursuant to the Territorial Lands Act and the Public Lands Grants Act. They are administered by the Resources and Economic Development Branch.

The regulations apply to wells and searching, producing or transporting operations for oil and gas carried out on Crown lands under the control of the Minister.

The Minister may in his discretion fix and regulate the production and allowables from all wells or pools in order to effect economic production and conservation of oil and gas.

The Minister may designate an area as a pool, field or both.

The approval of the Oil and Gas Conservation Engineer is required before any well is drilled or any program of structure test hole drilling is undertaken.

Every development well must be drilled within a target area of an approved well spacing area.

The operator may be required to core drill a formation from which oil and gas may be expected. All cores must be forwarded to the Oil Conservation Engineer. The operator must take samples at interval depths of 10 feet in non-core drilling.

The operator is required to take one electric log and one other type of electric log, radioactivity log, sonic log or other approved log for each well. Such logs must be forwarded to the Oil Conservation Engineer within 30 days.

A daily drilling report must be maintained.

Discovery of significant quantities of oil and gas must be reported to the Oil Conservation Engineer by the most expeditious method.

Rules concerning safe drilling and production practices, testing of wells, gas metering, gas-oil ratio, well treatment, injection, abandonment of wells and restoration of the surface are set forth.

INDIAN ACT

Indian Oil and Gas Regulations

Areas under permit, licence or lease by more than one person may be pooled.

Leases may be combined for unit operation or for a production spacing unit on terms prescribed by the Minister.

Mineral Taxation and Royalties

Canada Mining Regulations

An annual royalty is payable on the value of the output of a mine at the following rates:

(a) On first \$10,000	Nil
(b) \$10,000 to \$1,000,000	3 per cent
(c) \$1,000,000 to \$5,000,000	5 per cent
(d) \$5,000,000 to \$10,000,000	6 per cent
(e) Above \$10,000,000—a proportional increase of 1 per cent for each additional \$5,000,000, with a maximum rate of 12 per cent.	

A mine is exempt from royalty for the first 3 years after the production date. Two or more mines owned or operated by the same company are treated as separate mines.

The value of the output of a mine for a fiscal year is defined as the actual market value or the appraised value of the output minus the following allowable deductions:

- (a) transportation charges to the smelter, treatment plant, or refinery incurred in the year
- (b) smelter treatment and refining charges, incurred in the year, not elsewhere deducted from the output value.
- (c) smelter, mill and refining costs at the mine incurred in the year.
- (d) mine and mill operating, repairs and maintenance costs incurred in the year.
- (e) exploration and development costs at the mine incurred in the year.
- (f) general and indirect expenses incurred in the year, not elsewhere allocated to operating expenses where such expenses are incurred for property, employees or operations at the mine.
- (g) a depreciation allowance, at an annual rate determined by the Minister upon consideration of the cost to the operator of the depreciable assets of the mine at the time when royalties on the mine first become payable and not exceeding 15 per cent per year and 100 per cent in the aggregate of the cost to the

operator of the depreciable assets used in the production of the output of the mine.

- (h) in the case of a mine that starts production after the 3rd day of March, 1961, a preproduction allowance, at an annual rate determined by the Minister upon consideration of the costs to the operator of all expenses incurred for prospecting and for exploration and development of the mine at the time when royalties on the mine first become payable, and not exceeding 15 per cent per year and 100 per cent in the aggregate of all such expenses incurred by the operator of the mine prior to the day on which production was started.
- (i) if the costs incurred by the operator of the mine during the year in conducting exploratory work on land to which these Regulations apply are not claimed by him or the operator of any other mine under any other provisions of these Regulations, the lesser of
 - (i) the said costs; or
 - (ii) ten per cent of the total value of the output of the mine for the year before making any deductions; and
- (j) if the ore, mineral or mineral bearing substance or any part thereof is not sold in the year but is treated by the operator of the mine within the Northwest Territories, an annual processing allowance amounting to the lesser of
 - (i) 8 per cent of the original cost to the operator of the mine of the assets in the Northwest Territories used in such processing including machinery, equipment and plant, or
 - (ii) 65 per cent of the value of the output of the mine as determined under this section but before deducting this allowance.

No deductions may be made for any of the following:

- (a) the capital cost of the plant, machinery, equipment or building except as provided in paragraph (g) above.
- (b) depletion in the value of the mine, mining land or mining property, by reason of exhaustion or partial exhaustion of the ore or mineral.
- (c) president's and other elected officials' salaries.
- (d) director's fees.
- (e) director's travelling expenses.
- (f) stock transfer agents' fees.
- (g) shareholders' reports and meetings.
- (h) interest on overdrafts and loans, debentures and bonds.
- (i) head office or executive office expenses.
- (j) taxes and royalties paid on the basis of profit or income but not including municipal taxes.
- (k) royalties paid for use of mining property.
- (l) legal, accounting and other expenses in connection with incorporations, reorganizations, security issues or stock issues.
- (m) management and consultant services and expenses except when incurred at the mine.
- (n) bond discounts or discounts on shares sold or issued.
- (o) increase in reserves or provision for contingencies.
- (p) dues and memberships other than for mine employees.
- (q) insurance other than that applicable to the mine product, property or employees at the mine.

- (r) costs incurred properly attributable to revenue other than the gross receipts from the year's output of the mine described in this section; and
- (s) any expenses not properly vouched.

Canada Oil and Gas Land Regulations

The regulations apply to Canada lands, which are defined as being all lands owned by the Crown in the right of Canada not within any province including both the Yukon Territory and the Northwest Territories.

In general, a royalty of 5 per cent of the market value at the well head is payable monthly during the first 3 years of commercial exploitation where the leased area lies south of latitude 70 degrees north. In the case of all other areas, including those covered by sea coast water, a royalty of 5 per cent of the market value at the well head is payable monthly during the first 3 full years of commercial production or the first 5 years of commercial exploitation. The rate of royalty increases to 10 per cent for subsequent years.

Royalties on leases carrying extra royalty requirements depend on the location and vary considerably.

Territorial Dredging Regulations

The regulations apply to both the Yukon Territory and the Northwest Territories.

A royalty of 1¼ per cent is levied on the value of gold recovered, and of 2½ per cent of the value of other minerals including silver.

Territorial Coal Regulations

The regulations apply to both the Yukon Territory and the Northwest Territories.

An annual rental of 10¢ per ton is levied on merchantable coal mined under lease.

A royalty of 25¢ a ton is levied on coal mined under a permit.

Territorial Quarrying Regulations

The regulations apply to both the Yukon and Northwest Territories.

A royalty of 10¢ per cubic yard is levied on sand, gravel and loam. The royalty on other building materials is 5¢ per cubic yard.

YUKON QUARTZ MINING ACT

An annual royalty on the profits from a mine is payable at the following rates:

(a) on first \$10,000	Nil
(b) \$10,000 to \$1,000,000	3 per cent
(c) \$1,000,000 to \$5,000,000	5 per cent
(d) \$5,000,000 to \$10,000,000	6 per cent
(e) Above \$10,000,000—a proportional increase of 1 per cent for each additional \$5,000,000	

Two or more mines owned and operated by the same company are dealt with as one and the same mine.

The annual profits are calculated by deducting allowable expenditures from the value of the output of the mine for the year. The value of the output is the gross receipts from the output, the actual market value of the output at the pit's mouth or the appraised value.

The allowable expenditures which may be deducted from the value of the output are:

- (a) the actual cost of transportation of any output sold.
- (b) the actual and proper working expenses of the mine both underground and above-ground, including salaries and wages of necessary superintendents, foremen, workmen, firemen, enginemen, labourers and employees of all sorts, employed at or about the mine, together with the actual and proper salaries and office expenses for necessary office work done at the mine and in immediate connection with the operation thereof.
- (c) the cost of supplying power and light, and of the hire of horses or other means of transportation used in the mining operation, or in handling the ore or mineral.
- (d) the actual cost price of food and provisions for all employees aforesaid, whose salaries or wages are made less by reason of being furnished therewith, also the actual cost of fodder for horses used as above mentioned.
- (e) the actual cost of explosives, fuel, and any other supplies necessarily used in the mining operations.
- (f) any actual and proper outlay incurred in safe guarding and protecting the mine or mineral product.
- (g) the cost of proper insurance upon the output, and upon the mining plant, machinery, equipment and buildings used for or in connection with mining operations, or for storing the ore or mineral.
- (h) an allowance of a sum for annual depreciation, by ordinary wear and tear, of the said plant, machinery, equipment and buildings, such sum to be based upon the probable annual average cost of repairs and renewals necessary to maintain the same in a condition of efficiency, and in no case to exceed for any year 15 per cent of the value at the commencement of such year, such value to be appraised by an officer to be named by the Minister.
- (i) the cost of actual work done in sinking new shafts, making new openings, workings, or excavations of any kind, or of stripping, trenching, or diamond drilling in or upon the land upon which the mine is situated, or upon any other land belonging to the same owner lessee, holder, tenant, occupier or operator in the Yukon Territory, or the cost of any work, that, in the opinion of the Minister, has for its object the opening up of mines, or testing for ore or minerals; and
- (j) all taxes payable or paid upon the profits of the mine or milling work, or upon the profits made in smelting, refining, or otherwise treating any of the products of the mine or mineral work.

No allowance of deduction is made in any case for the cost of plant, machinery, equipment or buildings, nor for capital invested, nor for interest or dividend upon capital, or stock, or investment, nor for depreciation in the value of the mine, mining land, or mining property, by reason of exhaustion or partial exhaustion of the ore or mineral.

YUKON PLACER MINING ACT

A royalty is levied on all gold shipped from the Territory at a rate fixed by the Governor in Council. The present rate of one and one-half per cent of its value was set April 1, 1957.

Gold in the form of gold dust as mined or as bars for export is valued at \$15 per ounce for purposes of estimating the royalty payable.

INDIAN ACT

Indian Mining Regulations

A royalty is levied on all minerals taken from a leased area in the amount specified in the tender. Where no royalty is specified in the tender, 5 per cent is levied on the gross revenue from the mineral output where the minerals are sold at the lease area before treatment, or on the actual value at the lease area where the minerals are not sold before treatment.

Indian Oil and Gas Regulations

The royalty on oil is 10 per cent of the number of barrels produced monthly from 0 to 600, 15 per cent of the number of barrels produced monthly from 600 to 1,200, and 20 per cent of the number of barrels produced monthly in excess of 1,200. Greater or lesser royalties may be prescribed in the offer for tender.

The royalty on gas is $16\frac{2}{3}$ per cent of the selling price or fair value at the time and place of production.

Bounties, Subsidies and Aid Programs

EMERGENCY GOLD MINING ASSISTANCE ACT

Under this act, which came into force in 1948, financial assistance is provided to marginal gold mines to counteract the effects of increasing costs of production and a fixed price for gold. By enabling gold mines to extend their productive life, the subventions help communities dependent on gold mining to adjust gradually to diminishing economic support.

The act was last amended in 1963 at which time it was extended for four years to December 31, 1967.

The amending legislation introduced a restriction which affects lode gold mines coming into production after June 30, 1965. New lode gold mines commencing production after that date are eligible for assistance only if the mine provides direct economic support to an existing community. A gold mine is deemed to provide such support if the majority of the persons employed at the mine reside in one or more of the established communities which are specified in a schedule to the act. The restriction does not apply to lode gold mines which were in production prior to July 1, 1965, nor does it apply to placer gold mines.

The amount of assistance payable to an operator is determined by a formula and is based on the average cost of production per ounce and the number of ounces produced. The assistance on a per ounce produced basis ranges from zero to \$10.27. Gold mines having a cost of production of \$26.50 or less per ounce receive no assistance. Gold mines having a cost of production of \$45 or more per ounce receive the maximum rate of \$10.27 per ounce.

Under the current formula the assistance payable to the operator of a gold mine is computed by adding 25 per cent to the product of two factors, the "rate of assistance" and the number of "assistance ounces". The number of assistance ounces is two-thirds of the total ounces produced and sold to the Royal Canadian Mint by a mine in a calendar year. The rate-of-assistance factor is two-thirds of the amount by which the average cost of production exceeds \$26.50. The rate-of-assistance factor is limited to a maximum of

\$12.33 which is reached when the average cost of production rises to \$45 per ounce of gold produced.

The average cost of production is determined by dividing the total allowable costs by the total number of ounces produced in the form of bullion from the mine in a calendar year. Only those ounces of gold which have been sold to the Royal Canadian Mint are eligible for inclusion in the assistance-ounces factor.

The cost of production of gold from a mine includes mining, milling, smelting, refining, transportation, and administration costs. Allowances are made for depreciation, preproduction costs and expenditures on exploration and development on the mine property in accordance with the Regulations.

DOMINION COAL BOARD ACT

This act, which came into force on October 21, 1947, constituted the Dominion Coal Board to advise on all matters relating to the production, importation, marketing, distribution and use of coal in Canada. As another main function the Board was charged with the responsibility of administering coal transportation subventions. The act also provides authority in the event of a national fuel emergency to ensure that adequate supplies of fuel are made available to meet requirements.

Subvention assistance has been provided in varying degrees for the past 35 years. It was designed to aid the movement of Canadian coal to certain areas of central Canada by equalizing so far as possible the laid-down cost of the Canadian coal with the laid-down cost of United States coal, thus making the Canadian coal competitive at points of consumption with imported coal of similar quality. The principle of assisting Canadian coal to be competitive at points of consumption was also applied to export of Canadian coal to certain foreign markets other than the United States.

More recently, this same principle has been applied to meet the situation where foreign residual oil at low prices was seriously affecting eastern Canadian coal markets.

Regulations governing the payment of subventions, in effect in the final quarter of 1965-66 fiscal year, are contained in the following Orders in Council: P.C. 1965-627 (New Brunswick); P.C. 1965-620 as amended by P.C. 1965-1373 (Nova Scotia); P.C. 1962-460 (Saskatchewan); P.C. 1965-1724 (Alberta and British Columbia Crowsnest); P.C. 1962-462 as amended by P.C. 1962-1509 (Alberta and British Columbia Export). The regulations remain in effect from year to year unless the Orders in Council are revoked or amended.

The Board is empowered to investigate the various phases of the coal industry listed in the act, including the position of solid fuel in relation to other forms of energy and the coordination of the activities of government departments relative to coal. It may also be called upon by its Minister, or by statute or Order in Council, to assume additional duties. In this latter regard the Board has been given certain responsibilities in handling applications and in administering loans granted under the Coal Production Assistance Act. The Board also administers payments under the Canadian Coal Equality Act.

COAL PRODUCTION ASSISTANCE ACT

This act, which came into force on January 7, 1950, as the Maritime Coal Production Assistance Act, provided for government loans, subject to stipulated terms and conditions, to coal producers in the Atlantic Maritime Provinces for undertakings designed to increase the efficiency of their operations by means of mechanization. An

amendment, assented to on July 18, 1959, changed the name to Coal Production Assistance Act, made such mechanization loans available to coal producers in any part of Canada, increased the aggregate principal available for loans, raised the ceiling on the aggregate amount that may be loaned to any one producer and extended the life of the act to October 31, 1964. A further amendment, assented to on March 18, 1965, extended the life of the act to October 31, 1969.

The act requires that no loan shall exceed two-thirds of the cost of the project in respect of which it is made and that no such loan shall be granted unless the Minister of Energy, Mines and Resources is satisfied

- (a) that the project is in the public interest and completely and efficiently planned in its economic, engineering and operating aspects.
- (b) that the project when completed will substantially increase the efficiency of coal production.
- (c) that the coal producer is able to finance the cost of the project in excess of the amount of the loan provided for by the agreement, and will efficiently operate the plant after completion of the project; and
- (d) that the coal producer is following sound and reasonable policies as to dividends and will repay the loan and interest as provided by the agreement.

CANADIAN COAL EQUALITY ACT

This act, formerly referred to as the Coke Bounty Act, and regulations made thereunder, provide that, so long as imported coal used for making steel is duty free, the government will pay the manufacturers of iron and steel 49.5¢ per ton on bituminous coal mined in Canada and converted into coke by the manufacturer in the smelting in Canada of iron from ore, or in the manufacture in Canada of steel ingots and steel castings.

This legislation, which implemented one of the recommendations by the Royal Commission on Maritime Claims, was designed to assist those iron and steel producers who, because of their geographical position, are not able to take advantage of the customs treatment accorded imported coal for coking. It thus tends in this respect to equalize the cost differential between the various producers concerned.

ATLANTIC PROVINCES POWER DEVELOPMENT ACT

This act, passed on January 31, 1958, is administered under the direction of the Minister of Energy, Mines and Resources by the Northern Canada Power Commission.

It provides for long-term loans to any of the four Atlantic Provinces for the construction of thermal electric power plants and high voltage, inter-connecting electrical transmission lines in the Atlantic Provinces.

The act also provides for subvention payments on eastern Canadian coal used in the production of electric power in plants located in the Atlantic Provinces.

From December 1, 1964 the rate of coal subvention payments was established for a period of 5 years at 1.05 mills per kilowatt hour of power generated from Maritime coal.

PROSPECTOR'S ASSISTANCE PROGRAM

A program to assist prospectors in the Northwest Territories and Yukon Territory was initiated in July, 1961.

The basis of the program is earned assistance. The Department of Indian Affairs and Northern Development will pay up to 50 per cent of the allowable season's cost of a two-man prospecting party in return for evidence of legitimate expenditures and complete information regarding the work that was accomplished by the party. Assistance is not given to prospectors working alone.

All prospectors are eligible for assistance provided they spend a minimum of 60 days in the field in the Territories on prospecting activities during any one season. Priority is given to prospectors with previous prospecting experience in the Territory where application is made. A prospecting party may not receive assistance in both the Yukon Territory and the Northwest Territories in any one year.

Financial assistance is given to a maximum of \$30,000 in each Territory annually. Each prospector may receive up to \$900 per season. A screening board decides on the eligibility of applicants. An advance of up to \$600 may be given at the commencement of the season.

Since transportation is the major cost item to prospectors in northern Canada a sum not exceeding \$550 may be allowed for travelling expenses while not more than \$350 may be allowed for other expenses.

Operating and Safety Rules

Mining Safety Ordinance, Northwest Territories

Mining Safety Ordinance, Yukon Territory

The Commissioner of the Territories is empowered to make rules for the purpose of ensuring the safe operation of mines.

Provision is made for the establishment of mine rescue stations.

Mining Safety Rules

Rules are set forth with required procedures concerning fire protection, ventilation, care and use of explosives, hoisting practice, haulage, crushing plants, mill, metallurgical work, blast furnaces, roasters and diesel equipment used underground.

Mechanical rules and electrical rules govern the installation and maintenance of equipment.

Explosives Use Ordinance, Northwest Territories

Blasting Ordinance, Yukon Territory

A person using explosives, other than in accordance with the Mining Safety Rules, must hold a permit.

EXPLOSIVES ACT

The act, which is administered by the Department of Energy, Mines and Resources, provides for control over the manufacture, storage, testing, sale, importation, and transportation by road of explosives in Canada.

Only authorized explosives may be manufactured or imported. Explosives are subjected to various chemical and physical tests to ensure that they meet required standards and are suitable for authorization. These tests are carried out by the Explosives Research Laboratories of the Department of Energy, Mines and Resources in Ottawa.

Magazines for storing explosives on mining properties do not require a licence under the act where the explosives are for use in a mine or quarry in a province in which the law provides for the inspection of explosives used in mining. Mining magazines in Prince Edward Island, the Yukon Territory and the Northwest Territories do require a licence under the act.

Other Acts

RESOURCES AND TECHNICAL SURVEYS ACT

The Department of Mines and Technical Surveys Act, 1949 was renamed the Resources and Technical Surveys Act and otherwise amended by the Government Organization Act, 1966.

The former act authorized the collection and publication of mineral statistics, the investigation of mining areas and mineral deposits, geological surveys of Canada, research to aid the mining and metallurgical industry, the management of astronomical observatories, and the preparation and publication of topographical, geological and geographical maps and plans.

The present act not only retained these powers of investigation and research in the earth sciences, but broadened the powers of the Minister of Energy, Mines and Resources so that he is responsible for co-ordinating, promoting and recommending national policies and programs with respect to energy, mines and minerals, water and other resources. The areas of energy, water and water pollution present particularly difficult and complex problems.

The act authorizes the Minister to conduct applied and basic research programs and investigations and economic studies in relation to such resources, and for that purpose to maintain and operate research institutes, laboratories, observatories, and other facilities for exploration and research related to the source, origin, properties, development or use of such resources.

Moreover, he may examine and make recommendations on matters relating to the exploration for, or the production, recovery, manufacture, processing, transmission, transportation, distribution, sale, purchase, exchange or disposition of any such resources.

NATIONAL ENERGY BOARD ACT

This federal statute, proclaimed in force on November 2, 1959, established the National Energy Board, on whose behalf the Minister of Energy, Mines and Resources reports to Parliament.

The Board is vested with broad powers which are both advisory and regulatory in nature. Under its advisory function it is required to study and keep under review matters relating to the exploration for, production, recovery, transmission, transportation, sale, purchase, etc., of energy and sources of energy within and outside Canada.

The Board has the authority to control, by the issuance of Certificates of Public Convenience and Necessity, the construction of "pipe lines for the transmission of hydrocarbons connecting a province with any other or others of the provinces, or extending beyond the limits of a province". Such certificates may also be issued for a similar purpose in respect of "international power lines" to be used for transmitting power from any place in Canada to any place outside Canada. The Board sets tolls charged by pipe line companies for the transmission of hydrocarbons. By means of a licensing system, the Board also controls the export and import of natural gas and the

export of electric power. The part of the act which would give the Board the right to control the export and import of oil has to date not been proclaimed.

Another function of the Board is to either grant or deny permission for pipe lines to cross such utilities as highways, power lines, etc., or for pipe lines to be crossed by these utilities. Leave to cross navigable waters, canals, or railways is granted by other appropriate authorities named in the act.

Sections of the act empower the Board to control the location for construction of pipe lines that may interfere with mine openings and the removal of minerals from right-of-way by the pipe line company. Other persons may prospect and work mineral deposits on the right-of-way only with the permission of the Board. The Board has the right to determine compensation in certain prescribed circumstances.

The National Energy Board has been established as a "court of record", having all the powers of a superior court of record respecting the attendance, etc., of witnesses, the production and inspection of documents, enforcement of its orders, the entry upon and inspection of property and other matters necessary or proper for the due exercise of its jurisdiction as such. The Board is required to hold public hearings respecting the issue, cancellation or suspension of certificates or of licences for the exportation of gas or power or the importation of gas and may hold public hearings in respect of any other matter if it considers it advisable to do so.

ATOMIC ENERGY CONTROL ACT

The Atomic Energy Control Board has wide powers over the production, manufacture, sale and use of radioactive materials. Under the Atomic Energy Control Regulations no person may produce, buy, sell, import, export or use radioactive materials or special equipment which can be used for the release of atomic energy except in accordance with those regulations, or with the permission of the Board.

Any person who finds a mineral deposit containing uranium or thorium is required to report his findings to the Director, Geological Survey of Canada, Department of Energy, Mines and Resources, Ottawa, who is acting in this connection on behalf of the Atomic Energy Control Board. Exploration (beyond the stage of prospecting) and mining of radioactive mineral deposits may be undertaken only with the permission of the Atomic Energy Control Board and reports of such activities must be submitted periodically to the Director, Geological Survey of Canada.

Generally speaking, information regarding radioactive mineral deposits, exploration, and post-July 1, 1955 production may be made public. Further details may be obtained on application to the Director, Geological Survey of Canada, Department of Energy, Mines and Resources, or to the Secretary, Atomic Energy Control Board.

GOLD EXPORT ACT

The Gold Export Act, passed in 1932, authorizes the Governor in Council to make regulations regarding the export of gold from Canada. On March 21, 1956, the regulations which prohibited the export of gold in any form except under licence issued by the Minister of Finance were revoked. Thus, since March 21, 1956, producers have been free to sell their gold wherever they desire.

CURRENCY, MINT AND EXCHANGE FUND ACT

Part I of the Act establishes the dollar as the monetary unit of Canada. It sets forth

the denomination, composition, standard weight and fineness of subsidiary coins which together with notes issued by the Bank of Canada are legal tender of Canada.

Part II establishes the Royal Canadian Mint as a branch of the Department of Finance.

The principal functions of the Mint are the execution of domestic and foreign coins; the refining of gold and silver; the acquisition of gold, silver and other metals, payments for which are made on the basis of Mint assays; the control, preparation and movement of gold and coin shipments; the safeguarding of Mint holdings of monetary metals, including coin and precious metals in various processing stages until finished and issued; the fabrication and engraving of dies for coinage, medals, signatures and official seals; the issue of coin sets to numismatists and the administration of various regulations issued under the terms and provisions of the Currency, Mint and Exchange Fund Act.

Part III continues the Exchange Fund Account to aid in the control and protection of the external value of the Canadian monetary unit.

Gold Bullion Regulations

The regulations were made in 1959 under the provisions of the Currency, Mint and Exchange Fund Act.

The conditions under which the Master of the Mint may accept gold bullion for assaying, refining, and purchase or storage are set forth together with the charges for melting and assaying and for refining.

Schedule of Fees

Canada Mining Regulations

Prospector's licence	\$ 5.00
Company prospector's licence	
where the value of the authorized capitalization is \$3,000,000 or less	25.00
where the value of the authorized capitalization exceeds \$3,000,000	50.00
Substitutional prospector's licence	1.00
Recording a claim	5.00
Grouping certification	5.00
Certificate of work per claim	2.00
Recording any document affecting any mineral claim—per claim	2.00
Prospecting permit	25.00
Copies or certified copies of any document—per sheet	1.00
Abstract of the record of a claim	
first entry	1.00
each additional entry .....	.10
Lease fee	10.00
Rental under lease	
for original lease period per acre per year .....	.25
for renewal lease period per acre per year .....	.50
Registration of assignment of lease per claim contained in lease	2.00
Extension of time per claim	5.00
Payment in lieu per acre contained in claim	2.00
For a set of claim tags	1.00

Application for water grant	
50 inches or less	\$ 5.00
51 inches to 200 inches	10.00
201 inches to 1,000 inches	20.00
Each additional 1,000 inches or fraction thereof	20.00

Canada Oil and Gas Land Regulations

Exploratory licence	25.00
Exploratory permit	250.00
Oil and gas lease	10.00
Transfer of permit	25.00
Transfer of lease	10.00

Territorial Dredging Regulations

Application for a lease	5.00
Application for renewal of a lease	5.00
Assignment of a lease	3.00
Rate of rental per mile for first year	100.00
Rate of rental per mile for subsequent years	10.00

Territorial Coal Regulations

Application for lease or renewal	5.00
Annual rental per acre under lease	1.00
Registration of assignment of lease	3.00
Application for permit	1.00

Territorial Quarrying Regulations

Lease fee	5.00
Fee for assignment of lease	5.00
Annual rental under lease per acre	1.00
Permit fee	2.00

YUKON QUARTZ MINING ACT

Recording mineral claim	10.00
Substitutional record	10.00
Application for a lease and issue of same	10.00
Certificate of work—	
For one year	5.00
For two years	10.00
For three years	15.00
For four years	20.00
For five years	25.00
Certificate of improvements	5.00
Grouping certificate	5.00
Recording assignments, abandonments, affidavits, or any other documents	2.50

If document affects more than one claim, for each additional claim	\$ 1.00
Abstract of the record of a claim—	
For the first entry	1.00
For each additional entry .....	.10
Copies of any documents recorded—	
Up to three folios	3.00
For each additional folio .....	.50
Recording a power of attorney to stake from one person	4.00
Recording a power of attorney to stake from two persons	8.00
Recording an assignment of a quartz mining lease	3.00
Rental for whole or fractional mineral claim granted under lease for term of twenty-one years:	
If acreage is 51.65 acres or less	50.00
Add for each acre or fraction thereof over 51.65 acres	5.00
Rental for renewal term of twenty-one years—	
If acreage is 51.65 acres or less	200.00
Add for each acre or fraction thereof over 51.65 acres	20.00
Rental iron and mica claim as defined by Section 17	150.00
Rental for renewal term of 21 years iron and mica claim	600.00

YUKON PLACER MINING ACT

Grant of a claim for one year	10.00
Grant of a claim for five years	50.00
Renewal of grant of a claim:	
For one year	10.00
For two years	20.00
For three years	30.00
For four years	40.00
For five years	50.00
Recording an abandonment	2.00
Grouping certificate:	
(a) Ten claims or under	5.00
(b) Over ten claims	5.00
For each claim over ten	1.00
Registration of any document	2.00
If it affects more than one claim, for each additional claim	1.00
Filing any document	1.00
Abstract of title:	
For first entry	1.00
For each additional entry .....	.10
Copies of any documents recorded:	
Up to three folios	3.00
For each additional folio .....	.50
Grant of water:	
Of 50 inches or less	10.00
From 50 inches to 200 inches	25.00
From 201 inches to 1,000 inches	50.00
Each additional 1,000 inches or fraction thereof	50.00

INDIAN ACT

Indian Mining Regulations

Licence, permit or mining lease	\$ 20.00
Renewal of a permit or mining lease	10.00
Transfer of a permit or mining lease	10.00

Indian Oil and Gas Regulations

Grant of a contract or renewal of a lease	20.00
Assignment of a contract	20.00

Principal Officials

Inquiries for detailed information on the various acts and regulations referred to above may be directed to the Deputy Minister of the appropriate Department or to the Chairman of the appropriate Board, Ottawa, Canada.

Copies of acts may be purchased from the Queen's Printer, Ottawa, Canada.

BRITISH COLUMBIA

In 1859 the Crown declared ownership of all mines and minerals in the colony. Control over mineral rights was retained by the province at the time it joined Confederation in 1871.

Rights to minerals were included in Crown grants under the Land Act until 1891, and surface rights were included in Crown grants under the Mineral Act until 1893. Subsequently mineral and surface rights were separated in most grants by the Crown.

The titles of Crown grants of lands and of mineral rights are registered under the provisions of the Land Registry Act.

Crown grants of freehold mineral rights in the province have in some cases been direct and in other cases have been included as a part of grants of surface rights. Such grants have not necessarily included all minerals. Consequently the ownership of freehold mineral rights can often be ascertained only by a careful examination of the terms of the original grant from the Crown.

An amendment to the Mineral Act in 1957 replaced a system of issuing mineral rights in fee simple through Crown grants by a system of leasing mineral rights by the Crown. Freehold titles acquired under the earlier system were not affected.

Ownership of leases of mineral rights from the Crown are recorded by the Department of Mines and Petroleum Resources.

DEPARTMENT OF MINES AND PETROLEUM RESOURCES

The department operates under the Department of Mines and Petroleum Resources Act.

The department is responsible for general administration of the laws related to title of all minerals other than certain industrial minerals. It conducts geological mapping programs, examines mineral deposits, makes safety inspections of coal and metal mines, provides a free assay service on a limited scale to a holder of a free miner's certificate, and inspects oil and gas well drilling and production operations and facilities.

The Petroleum and Natural Gas Act provides for the establishment of a Conserva-

tion Committee consisting of three members. At present two are staff members of the Department of Mines and Petroleum Resources and one is a staff member of the Department of Industrial Development, Trade, and Commerce. The Conservation Committee is responsible to the Minister of Mines and Petroleum Resources who may request a hearing with respect to any matter, including appeals from any decision made by the Petroleum and Natural Gas Branch of his department.

Provisions also exist for the expenditure of public funds for the construction, reconstruction, or repair of trails, roads, and bridges to facilitate the exploration of mineral resources or the operation and development of any mining property.

The Acts and Regulations administered by the Department of Mines and Petroleum Resources are as follows:

	<i>Page</i>
Mineral Act, R.S.B.C. 1960, Ch. 244	39, 46, 50
Placer-mining Act, R.S.B.C. 1960, Ch. 285	42, 50
Petroleum and Natural Gas Act, S.B.C. 1965, Ch. 33	43, 45, 48, 49, 51
(a) Geophysical Regulations, Order in Council 878/63	43
(b) Drilling Reservation Regulations	44
(c) Drilling, Production and Conservation Regulations, Order in Council 2033/61	46, 49
(d) Regulation Establishing Gas-Oil Ratio Adjustment Factors, Oil Pro- duction Allowables, Overproduction and Underproduction, Order in Council 2123/64	46
(e) Royalty Regulations, Order in Council 1267/65	48
Underground Storage Act, 1964, Ch. 62	50
Coal Act, R.S.B.C. 1960, Ch. 60	45
Indian Reserves Mineral Resources Act, R.S.B.C. 1948, Ch. 212	45
Copper Bounty Act, Statutes 1961, Ch. 11	48
Iron Bounty Act, R.S.B.C. 1960, Ch. 200	48
Metalliferous Mines Regulations Act, R.S.B.C. 1960, Ch. 22	48
Coal Mines Regulation Act, R.S.B.C. 1960, Ch. 61	49
Prospector's Grub-stake Act, R.S.B.C. 1960, Ch. 302	49

There are certain other acts which directly affect the mineral industry within the province. They are as follows:

Land Act, R.S.B.C. 1960, Ch. 206	42, 46
Mining Tax Act, R.S.B.C. 1960, Ch. 247	47
Taxation Act, R.S.B.C. 1960, Ch. 376	47
Mines Right-of-Way Act, R.S.B.C. 1960, Ch. 246	50
Pipe-Lines Act, R.S.B.C. 1960, Ch. 284	50
Forest Act, R.S.B.C. 1948, Ch. 128	50
Workmen's Compensation Act	49

Disposition of Mineral Rights

MINERAL ACT

The act applies to every natural substance that can be mined including ore of any metal or metals, but does not include coal, petroleum, natural gas, building and construction stone, limestone, marble, clay, sand, gravel, volcanic ash, earth, soil, diatomaceous earth, marl or peat.

Free Miner's Certificate

Any person, including citizens of all foreign countries, over the age of 18, and any corporation incorporated or registered in British Columbia, may obtain a free miner's certificate upon request and payment of a fee of \$5 for an individual, \$100 for a corporation with capitalization of \$100,000 or less, or \$200 for a corporation with capitalization exceeding \$100,000 or no stated capitalization. A free miner's certificate expires on May 31 following the date of issue.

A free miner's certificate must be obtained before a person can prospect for mineral and locate and record mineral claims or locate and apply for placer-mining leases in British Columbia.

The possession of a certificate entitles the holder to enter upon all lands of the Crown and upon any other lands wherein the right to enter has been reserved to the Crown for the purpose of prospecting, locating, and mining. Land under cultivation, orchards, and naval and military reservations are excluded.

It is not necessary for a shareholder in a corporation to be the holder of a free miner's certificate.

A person does not need a free miner's certificate to hold title in Crown-granted mineral claims.

A Crown grant or lease of mineral rights issued after April 12, 1893, conveys the rights to the surface and the timber thereon only to the extent that they are essential to the conduct of the mining operation.

Locating Mineral Claims

Mineral claims are located by placing two properly marked, legal posts not more than 1,500 feet apart, the line between the posts being the location line. The width of the claim must not exceed 1,500 feet, measured at right angles to the location lines. The location line must be blazed and cleared of brush. The area of a claim may not exceed 51.65 acres. There is no limit to the number of claims that can be acquired by location.

Metal identification tags, serially numbered in pairs, furnished by the recorder at 25¢ each, must be affixed to the legal posts numbered 1 and 2 at the time the claim is located.

Recording Mineral Claims

Mineral claims must be recorded with the Mining Recorder of the division in which the claims are situated within 15 days of staking if the claims are within 10 miles of the recorder's office. One extra day is allowed for each additional 10 miles of distance. The time allowed for recording may not exceed 30 days in any case. The fee is \$5. A claim not recorded in the prescribed time is considered to be abandoned.

Assessment Requirements

Mineral claims may be held without limit in time provided that work be performed on each claim to the value of at least \$100 a year or that an annual payment of \$100 be made in lieu of work. The work must be recorded on or before the anniversary date of the record of the claim in each year. The fee for recording is \$5 for each \$100 of work.

If work has been performed but not recorded by the anniversary date, a free miner may within 30 days record the work upon payment of an additional fee of \$10. If work is not done, payment of cash in lieu of work must be made on or before the anniversary date of the claim.

Assessment work comprises such work as stripping, open-cutting, shaft sinking, driving tunnels, diamond drilling, or other actual exploratory or mining operations. It does not include living or travelling expenses and no allowance is made for building construction of any kind. Cost of the survey of a mineral claim, not exceeding an amount of \$200, is acceptable as assessment work. Road or trail work giving access to mineral claims may also be recorded as assessment work, but such work may only be used for that purpose for one year during one of the first three years of the life of a claim. Geological, geophysical, and geochemical work may also be recorded as assessment work but only under special regulation. If, during any year work in excess of the required \$100 is done, further expenditures in amounts of not less than \$100 may be recorded and counted as further assessments, but such excess work must be recorded during the anniversary year in which it is performed. All work done on a mineral claim between the time of its location and recording may be counted as work done during the first year from recording.

The act provides for the grouping of up to 40 mineral claims to be worked as a unit. A group may consist wholly of recorded claims or claims contained in mineral leases or may contain recorded claims, Crown-granted mineral claims, and claims contained in leases. The claims and leases may be held by assessment work done on any claim in the group.

Mineral Leases

When assessment work, exclusive of houses, buildings, and like improvements, to the extent of \$500 or the payment of \$500 cash in lieu of work per claim has been completed, and the claim has been surveyed, the claim holder may apply for a certificate of improvement and a mineral lease.

The fee for issuing or for renewing a lease is \$25 for the first mineral claim contained in the lease, and for each claim included in the lease in excess of one, an additional fee of \$5 is levied. Leases are issued for a term of 21 years subject to annual rental payments of 50¢ per acre for the first 10 years and one dollar per acre during each subsequent year.

Annual assessment work requirements for the same periods are \$4 and \$6 per acre respectively. Work must be recorded in the anniversary year of the lease in which it is done, and, as in the case of mineral claims, any work in excess of one year's requirement in an amount not less than that required for one or more years may be applied as excess for succeeding years up to the full term of the lease. In lieu of doing the work, payments equivalent to the value of the work required are accepted.

Leases are issued by the Gold Commissioner for the mining division in which the claims are situated and all transactions in connection with such a lease are dealt with by that official.

Right of Entry

The possession of a free miner's certificate establishes the right of the holder to enter all Crown lands and most freehold lands for the purposes of prospecting, locating

and mining minerals under the Minerals Act and Placer-mining Act. On most freehold lands the right to such entry has been reserved to the Crown. Lands under cultivation, occupied by buildings, orchards, and naval and military reservations are excluded.

The surface rights to Crown lands under mineral lease may be leased or sold by the Minister of Lands and Forests upon the recommendation of the Minister of Mines and Petroleum Resources.

The right to use the surface on freehold lands must be negotiated with the owner of the land.

LAND ACT

The rights to building and construction stone, limestone, marble, clay, sand, gravel, volcanic ash, earth, soil, diatomaceous earth, marl and peat may be acquired under the Land Act.

The act is administered by the Department of Lands and Forests and Water Resources.

Any person 21 years or over may apply for a lease with respect to one or more of the minerals listed above as specified in the lease. The term of the lease may be as long as 21 years. The annual rental is \$2 per acre, with a minimum of \$25, for all materials except limestone.

In the case of limestone, the rental is \$2 per acre per annum with a minimum of \$25 for the first year of the lease. The rental is \$10 per acre per annum for the ensuing 5-year period, and is subject to adjustment in subsequent years.

PLACER-MINING ACT

The act deals specifically with minerals occurring in any natural unconsolidated material, excluding mineral in place.

Under the act, a free miner may locate, in any period of 12 consecutive months, one placer claim or leasehold in his own name and one placer claim or leasehold for each of three free miners for whom he acts as agent on any separate creek, riverbed, bar, or dry diggings. Other placer claims or leaseholds may be acquired by purchase.

An agent may not prospect for, locate, or record any placer claim or placer leasehold on behalf of his principal unless he holds a valid free miner's certificate and a power of attorney from his principal which has been recorded in the office of the Mining Recorder for the mining division in which the claim or leasehold is situated.

Placer claims

Placer claims are of three classes, as follows:

Creek diggings—any mine in the bed of any stream or ravine.

Bar diggings—any mine between high- and low-water marks on a river, lake, or other large body of water.

Dry diggings—any mine over which water never extends.

Every placer claim shall be as nearly as possible rectangular in form, and marked by four legal posts at the corners.

Placer claims must be recorded in the Mining Recorder's office for the mining division in which they are situated within 15 days from the date of location, if within 10 miles of recording office. One day extra is allowed for each additional 10 miles of distance.

Except during the close season, lay-over, leave of absence, absence on account

of sickness, or other acceptable reason, claims must be worked continuously during the normal working hours, and cessation of work for a period of seven days is cause for the claim to be forfeited.

Placer-mining Leases

Leases of approximately 80 acres may be granted by the Gold Commissioner of the mining division in which the leasehold is located. The length of a placer-mining leasehold may not exceed one-half mile and the width one-quarter mile. The term of lease may not exceed 20 years.

Leases are subject to an annual rent of \$30 and to an annual expenditure of \$250 on development. An issuance fee of \$5 must also be paid. The work must be recorded and a certificate of work obtained. Cash in lieu of work is accepted.

Work comprises physical work in developing a placer mine, exclusive of the construction of buildings, and living and transportation costs. Geological and geophysical work is allowed in accordance with regulations.

Provision is made for the grouping of up to eight placer-mining leases so that work performed on one or more of them may be applied to the group.

THE PETROLEUM AND NATURAL GAS ACT

This act provides for rights to explore and produce petroleum and natural gas.

Exploration permits give the holder the right to carry out geological and geophysical work and exploratory drilling within the area of his permit.

A geophysical licence is issued under the act to any person or corporation who undertakes geophysical exploration. Each application must be accompanied by a fee of \$25 which covers a period of one year from the date of issue.

Permits are issued over *grid areas* or over a *block* or *blocks* in a *grid area* which, when combined, are four-sided in shape. A *grid area* comprises 15 minutes of latitude and 15 minutes of longitude which is divided into six *blocks*. Each *block* is 5 minutes of latitude wide and 7 minutes 30 seconds of longitude long. A maximum-size permit at the International Boundary (49th parallel) would contain 125,366 acres and at the British Columbia-Yukon boundary 96,368 acres. A minimum-size permit, or one *block*, at the same boundaries would contain 20,929 acres and 16,021 acres respectively.

A permit is held from year to year by payment of a fee and rental and the performance and recording of work required to be done. Cash in lieu of work may be paid in any year. Each permit is placed in one of categories A, B, C, or D. These have been designed to compensate for inequalities in accessibility and terrain in different parts of the province. Category D is applied only to those permits where 75 per cent or more of the available permit area is constantly covered by water.

The following tables outline the requirements to be met in so far as fees, rentals and work requirements are concerned:

Fee \$250 on initial issue and for every renewal thereof.

Rental per Acre

<i>Year</i>	<i>1st</i>	<i>2nd</i>	<i>3rd</i>	<i>4th</i>	<i>5th</i>	<i>6th</i>	<i>7th</i>	<i>8th</i>
A	5¢	5¢	5¢	10¢	10¢	20¢	25¢	30¢
B	5¢	5¢	5¢	10¢	10¢	15¢	15¢	25¢
C	5¢	5¢	5¢	10¢	10¢	10¢	10¢	10¢
D	2½¢	2½¢	2½¢	5¢	5¢	5¢	7½¢	7½¢

Work Requirement per Acre

<i>Year</i>	<i>1st</i>	<i>2nd</i>	<i>3rd</i>	<i>4th</i>	<i>5th</i>	<i>6th</i>	<i>7th</i>	<i>8th</i>
A	10¢	20¢	40¢	50¢	75¢	\$1.00	\$1.50	\$1.50
B	10¢	15¢	30¢	40¢	50¢	75¢	\$1.00	\$1.00
C	10¢	10¢	20¢	25¢	35¢	50¢	75¢	75¢
D	5¢	5¢	10¢	25¢	35¢	50¢	75¢	75¢

A person who holds an area under permit may select zones or geological horizons for which to apply for a natural gas licence; this grants to the licensee the right to obtain leases of all the licensed area for natural gas in the geological horizons in which gas is developed. When a natural gas licence is issued the petroleum in the horizons included in the licence is reserved to the Crown.

There is a fee of \$25 for the issue of a natural gas licence and for each renewal. Rental charges are five cents per acre for six months up to two zones for licences in Class A permits, and five cents per acre per year up to two zones for licences in Class B, C or D permits; for more than two zones, five cents per additional zone per acre.

Apart from the natural gas licence provisions, a permittee may, on or before the expiration of his permit, apply for petroleum and natural gas leases covering up to 50 per cent of the area within his permit, on a checkerboard pattern with the remaining 50 per cent of the area becoming a Crown reserve. A major part of the revenues received by the department from the petroleum and natural gas industry is derived from bonus bids upon areas of these Crown reserves when offered for sale to the highest bidder.

If leases are selected before a permit has been held for five full years the leases contain provisos requiring work to be done to make up the work which would have been required by a five-year permit life. A lease may be obtained without going through the permit stage but the lessee is required to do work equal to that required to hold a minimum-size permit for five years.

The issuance fee for a lease is \$25. A yearly rental of one dollar per acre is charged if the lease is for petroleum and natural gas. If a lease is for natural gas only the annual rental is 40¢ per acre. These rentals may be reduced to 50¢ for a petroleum and natural gas lease if satisfactory exploratory work is being done, and to 25¢ and 10¢ for a petroleum and natural gas lease and a natural gas lease respectively if a field has been delimited and there is no adequate market.

Provision is made in the act for arbitration concerning right of entry on land occupied for other purposes, for exploration, development or production of petroleum and natural gas.

Drilling Reservation Regulations

Crown reserve petroleum and natural gas rights may be obtained by purchase of a drilling reservation. A drilling reservation grants to the holder the right to do exploratory work and drilling for petroleum and natural gas. There is an initial fee of \$250 with rental charges of 20¢ an acre for the first year with 10¢ an acre for the first renewal and 20¢ an acre for any subsequent renewals.

Before the expiration of the term of the drilling reservation or its renewal the holder may select a petroleum and natural gas lease or leases in accordance with the provisions set forth in the drilling reservation.

COAL ACT

Rights to Crown coal may be acquired by licence or lease under the above act. Licences are issued for areas of one square mile for production of coal up to 10,000 tons per annum. Leases may be issued over areas of similar size for the production of coal in which the lessee agrees to produce not less than 10,000 tons per annum. Leases are only issued over licences in which the licensee has reached a production of 10,000 tons or more. As many licences or leases may be acquired as are commensurate with the size of the operation and available market.

Licence fee is \$25 per year. The rental payable is 50¢ per acre per year. If development work to the value of \$7.50 per acre is performed, the rental may be rebated.

INDIAN RESERVES MINERAL RESOURCES ACT

The act validates an agreement between the federal government and the province, whereby mineral rights on Indian Reserves, upon surrender by the Indian band, shall be administered by the province, subject to the laws of the province. Before prospecting on Indian Reserves a free miner must obtain the approval of the Indian Agent for the Reserve and that of the Gold Commissioner for the mining division in which the reserve is located.

PARKS ACT

Prospecting and mining are permitted in certain of the provincial parks in accordance with requirements of the act.

Oil and Gas Conservation

PETROLEUM AND NATURAL GAS ACT

The purpose of the conservation provisions of the act is to provide for the use of efficient and safe practices in the locating, spacing, drilling, equipping, completing, re-working, testing, operating and abandoning of all wells; for the orderly development of oil and gas fields discovered within the province; and for the conservation and prevention of waste of oil and gas within the reservoir during production operations. The provisions are enforced by the Petroleum and Natural Gas Branch of the Department of Mines and Petroleum Resources.

A person proposing to drill a well must obtain a well authorization. The application must be accompanied by a survey plan and a fee of \$50. A drilling deposit of \$2,500 is required to guarantee the proper operation of each well. Authorization must also be obtained prior to the drilling of a test hole. The authorization may include more than one test hole. The application must set forth the proposed drilling program. Drilling must commence within 90 days of the date of issue of the well or test-hole authorization. Provision is made for the suspension of a well authorization or a test-hole authorization where provisions of the act or regulations have been contravened.

The act sets forth provisions concerning unitization, pooling of locations, and normal spacing areas for oil and gas wells. It requires the Chief of the Branch to maintain a record, known as the Well Register, of each well drilled and authorizes him by general or special orders, to designate pools and fields, determine whether a field or pool shall be operated for the production of oil and/or gas, control and regulate the production

of oil, gas and water by restriction, proration or prohibition, and require the disposal of water produced.

The act authorizes the Minister to restrict, by general or special orders, the amount of oil or gas that may be produced in the province; to require the establishment or approval of a scheme for pressure maintenance or processing, storage and disposal of natural gas and water; and to exercise control over wild wells.

The Lieutenant-Governor in Council is authorized to make regulations governing specific aspects of drilling, production, and conservation as well as general conservation of oil and gas, the waste or improvident disposition thereof, and any other matters related to the development and drilling of wells and the production of oil and gas.

Regulations Governing the Drilling of Wells and the Production and Conservation of Oil and Natural Gas

The regulations deal with such matters as target areas, well names, well cutting samples and cores, fluid samples, tests, surveys, analyses, logs, reports, records, release of information, multizone completions, measurement of allowable rates of production, gas-oil ratio control and unitization.

Regulation Establishing Gas-Oil Ratio Adjustment Factors, Oil Production Allowables, Overproduction and Underproduction

This regulation provides for conservation of reservoir energy by limiting the volume of oil that can be produced during any day, month or year from a well or pool in accordance with the schedule of gas-oil ratio adjustment factors. The factors, which are used to determine the rate of oil production are applicable when the average volume of gas produced with each barrel of oil exceeds a specified level and when they result in a reduction of the producing rate. Overproduction and underproduction are adjusted on a monthly basis.

Mineral Taxation and Royalties

MINERAL ACT

The act provides that orders in council may be passed levying royalties on mineral production from lands the mineral rights to which were disposed by the Crown after May, 1948.

The only royalty which has been imposed is on iron won from land covered by mineral claims recorded since January 19, 1951 or Crown-granted mineral claims leased from the Crown since that date.

LAND ACT

The act applies to building and construction stone, limestone, marble, clay, sand, gravel, volcanic ash, earth, soil, diatomaceous earth, marl and peat.

The minimum royalty is 10 cents per cubic yard on all material to which the act applies. The rate of royalty is subject to review and adjustment after each 5-year period of the lease.

MINING TAX ACT

All mining companies in the province are liable to a tax at the rate of 10 per cent on the net income in excess of \$25,000 derived from mining operations.

The tax is applicable to all minerals except coal, petroleum and natural gas.

The annual net income of related operators is grouped for purposes of calculating the mining tax payable, and only one exemption of \$25,000 is allowed. The net income is exempted from mining tax for the first 3 years of operation of the mine. The tax is levied on the net income derived from minerals at the point of egress from the mine.

The net income taxable under the act is determined by adding certain non-allowable charges and deducting net income earned from sources other than the mining operation from the income taxable under the federal Income Tax Act.

The following are the non-allowable charges added to give the total net income:

- (a) Depletion or exhaustion of a mine
- (b) Scientific research outside British Columbia
- (c) Provincial Mining Tax
- (d) Charitable donations outside British Columbia and charitable donations in excess of 5 per cent of taxable income
- (e) Losses sustained in preceding years
- (f) Net loss of a non-mining business
- (g) Prospecting, exploration and development expense outside British Columbia

The net mining income is ascertained by deducting the following items from the total net income:

- (a) Net income derived from dividends, interest.
- (b) Net income derived from any business other than mining operations and processing and sale of mineral ores or products produced therefrom.
- (c) Eight per cent of the capital employed in processing mineral ores. Such allowance shall not be in excess of 65 per cent not less than 15 per cent of the income from all sources after deducting items (a) and (b). To encourage further processing of minerals in the province additional percentage deductions of 5 per cent and 10 per cent of the net income are granted in many instances where secondary manufacturing processes are carried out, provided that the total processing allowance does not exceed the 65 per cent maximum processing allowance.
- (d) The net income, if any, derived from mining outside British Columbia.

The act is administered by the Department of Finance. A taxpayer may appeal his assessment to the Minister of Finance within 60 days of the assessment date.

TAXATION ACT

Crown-granted mineral claims, on which annual development work of at least \$200 per claim is not completed annually are subject to an annual tax of 25¢ an acre. Exemption from this tax when the minimum annual development work is completed may be obtained by affidavit. The acreage tax is a penalty applicable only when the minimum development work is not completed annually. It is not applicable to operating mines.

Operators are permitted to combine mineral claims into groups of eight for purposes of obtaining exemption where work was done on any one claim. All eight claims must be adjoining to qualify.

The act is administered by the Department of Finance.

PETROLEUM AND NATURAL GAS ACT

Petroleum and Natural Gas Royalty Regulations

Every licensee and lessee shall pay a royalty on all petroleum and natural gas obtained from every location.

With respect to crude petroleum the royalty varies in accordance with an established schedule from 5 per cent to 16 $\frac{2}{3}$ per cent of the barrels produced with the lowest percentage applying to 600 barrels or less per month and the highest to 4,050 or more barrels per month.

With respect to other liquid hydrocarbons and sulphur obtained by processing natural gas by absorption or other approved methods, the royalty is 12.5 per cent if obtained from a lease issued prior to March 31, 1963 and 15 per cent if obtained from a lease issued after March 31, 1963. With respect to natural gas or residue gas the royalty is 15 per cent but in no case not less than 0.75¢ per 1,000 cubic feet.

Where the sale of natural gas takes place at a point other than the well-head, application may be made for a transportation allowance not exceeding one and one-half cents per thousand cubic feet. No other deduction may be allowed.

Bounties and Subsidies

COPPER BOUNTY ACT

The Minister of Mines and Petroleum Resources, with the approval of the Lieutenant-Governor in Council, may, on behalf of the Crown, enter into an agreement for the payment to any person, over a term not in excess of 10 years of a bounty of one cent,

- (a) on each pound of blister copper; or
- (b) on each pound of refined copper, or both, produced from ore or concentrates mined and smelted or mined and refined within the province but of not more than \$250,000 in any one year or more than a total of \$2,500,000.

No bounties have been paid to date under the terms of the act.

IRON BOUNTY ACT

This act provides for the payment by the province of bounties on iron ore mined and smelted within the province up to a maximum of 100,000 tons in any one year or 1 million tons of iron in the aggregate. The \$5-per-ton bounty is paid only where a royalty has been paid to the Crown. If no royalty has been paid to the Crown, the bounty is reduced to \$3 per ton of iron ore mined and smelted within the province. Any ore which comes into the province for purposes of being smelted is entitled to receive a bounty of \$2 per ton.

Any agreements entered into between the Minister of Mines and any person are for periods not exceeding ten years.

Operating and Safety Rules

METALLIFEROUS MINES REGULATIONS ACT

This act provides for safe working practices in metalliferous mines, metallurgical works, and quarries.

The regulations cover surface arrangements, fire protection, use and storage of explosives, hoisting, haulage, use of diesel engines underground, use of machinery, etc. The health of the workmen is protected under regulations which govern dust control, medical examinations, first-aid requirements, dry houses and sanitation.

Provisions have been made for training and maintaining mine rescue teams at the larger mining centers. The act also provides for the appointment of mining inspectors; for the protection of public and private property from damage resulting from mining operations; and for appointing workmen's safety committees.

THE COAL MINES REGULATION ACT

This act provides for safe working practices in coal mines. Included are rules designed to minimize the hazard of coal dust underground and in cleaning plants; rules to regulate ventilation in mines; rules governing the kind, and use of explosives; rules governing surface coal stripping operations; rules governing electrical installations above and below ground; and provisions for the use of diesel engines of a permissible type for underground haulage where conditions are considered suitable.

PETROLEUM AND NATURAL GAS ACT

A rig licence is required before a person may operate a drilling rig or a service rig. The licence is valid for one year from the date of issue.

Regulations Governing the Drilling of Wells and the Production and Conservation of Oil and Natural Gas

The regulations control drilling and production operations with a view to protecting the resource. Rules are set forth concerning well casing and equipment, reports and records, electrical installation, fire precaution and control, measurement of allowable rates of production, abandonment requirements, and restoration of the surface.

WORKMEN'S COMPENSATION ACT

Rules for the safety of personnel engaged in oil and gas exploration, drilling and production are provided under this act.

Other Acts

PROSPECTOR'S GRUB-STAKE ACT

This act provides for financial assistance each year to a limited number of prospectors who have made application and can qualify. In this act "prospector" means any mentally and physically fit male British subject under the age of 70 holding an unexpired free miner's certificate who has been resident in the province during the year preceding the application for a grub-stake.

Grub-stakes up to \$300 for food, clothing and shelter, plus \$200 for travel expenses are available to bona fide prospectors. In certain cases, these figures may be increased to \$400 and \$300 respectively, where prospectors are working in areas where transportation costs are excessively high. Applicants must pass a simple test on mineral recognition and must also spend a minimum of 60 days in the field. A diary must be kept of activities.

PIPE-LINES ACT

The Pipe-lines Act is administered by the Minister of Commercial Transport, and was passed in 1955. The act provides control over all high-pressure transmission pipe-lines. The Minister may declare that the act shall apply to any company and to its pipe-lines.

FOREST ACT

The act respecting Crown timber and the conservation and preservation of forests is administered by the Department of Lands and Forests.

Provision is made in this act for free miners to cut timber for prospecting or development before production is achieved, with special restrictions in provincial parks. Forests reserves are subject to such conditions as the Lieutenant-Governor in Council may impose in respect to the Mineral Act, Placer-mining Act, Coal Act and Petroleum and Natural Gas Act.

MINES RIGHT-OF-WAY ACT

This act gives access to mining property through a right-of-way for any road, railway, aerial, electric, or other tramway, surface or elevated cable, electric or telephone pole line, chute, flume, pipeline, drain, or any right or easement of a like nature.

An applicant for a right-of-way must file with the Minister of Commercial Transport a plan showing the land required.

Before entering upon land under this act, the applicant must notify the owner or occupier, describe the land to be taken and indicate his readiness to pay compensation for it.

If only Crown land is involved, the approval of the Minister of Lands and Forests, as well as the Minister of Commercial Transport, must be obtained.

UNDERGROUND STORAGE ACT

This act empowers the Lieutenant-Governor in Council to designate areas in the province as "storage areas" for which the Minister may issue a licence for exploration to determine the suitability of any structure for storage of hydrocarbons. The act also allows for licensing an area for the excavation of underground cavities for storage purposes.

Schedule of Fees

MINERAL ACT AND PLACER-MINING ACT

Free miner's certificate, individual	\$ 5.00
Free miner's certificate, company cap. \$100,000 or less	100.00
Free miner's certificate, company cap. over \$100,000	200.00
Recording a mineral claim	5.00
Recording work, mineral claim, for each \$100	5.00
Recording work, placer-mining lease, for each \$250	5.00
Recording work (mineral lease):	
(a) each year for each \$100 or fraction thereof	5.00
(b) excess work for each year for each \$100 or fraction	5.00

Grouping notices, Mineral Act	1.00
Consolidations, Placer-mining Act	1.00
Recording abandonment or obtaining permission to relocate (mineral claim)	10.00
Recording abandonment (placer claim)	2.50
Recording any affidavit	5.00
Records in "Records of Conveyances":	
(a) for the first claim or placer lease in the document	4.00
(b) for each additional claim or placer lease	1.00
Extracts from records, not exceeding 3 folios, per copy	2.00
Each folio over 3, per folio	0.50
Abstract of title for each mineral claim or placer-mining lease	2.00
Filing documents, Mineral Act	1.00
Filing documents, Placer-mining Act	1.00
For every lease under Placer-mining Act	5.00
For filing a power of attorney	2.00
For each pair of metal identification tags	0.25

PETROLEUM AND NATURAL GAS ACT

Geophysical licence	25.00
Every permit fee and renewal thereof	250.00
Every lease fee and renewal thereof	25.00
Recording every assignment	25.00
Recording every instrument or document other than an assignment	10.00
For all copies or extracts from any record, for each page	0.25
For certifying copies or extracts from any records:	
(a) for the first page	2.00
(b) for each additional page	0.25
Recording every instrument made pursuant to section 82 of the Bank Act of Canada	10.00
Application for a drilling authority	50.00
Drilling deposit	2,500.00
Application to change a well name	25.00

Principal Officials

DEPARTMENT OF MINES AND PETROLEUM RESOURCES

Minister

Deputy Minister

Chief Gold Commissioner and

Chief Commissioner, Petroleum and Natural Gas

Chief, Mineralogical Branch

Chief, Inspector of Mines

Chief, Petroleum and Natural Gas Branch

Chief Analyst and Assayer

Inquiries for detailed information on the various acts and regulations referred to above may be directed to the Deputy Minister, Department of Mines and Petroleum Resources, Victoria, British Columbia.

Copies of acts may be purchased from the Queen's Printer, Victoria, British Columbia.

ALBERTA

The Alberta Act was the instrument by which the province was formed in 1905 from a part of the Northwest Territories. Although the act provided that the terms of the British North America Act in general would apply to the province, it was stipulated that control over the natural resources would remain vested in the Government of Canada.

This arrangement was terminated in 1930, at which time full control over natural resources was transferred to the province by the Alberta Natural Resources Act, excepting in National Parks and Indian Reserves.

Some mineral rights were alienated to the railways, the Hudson's Bay Company and homesteaders during the period prior to 1930. However, the province retains title to approximately 81 per cent of mineral lands within its boundaries. Mineral rights since 1930 have been granted only by a leasing system.

Mineral rights held from the Crown are recorded with the Department of Mines and Minerals. Titles to freehold minerals are registered under the Land Titles Act.

DEPARTMENT OF MINES AND MINERALS

The Department of Mines and Minerals Act, creating a new department, came into force on April 1, 1949.

The department is charged with the disposition of Crown-owned mineral rights and the collection of revenues arising from mines and minerals by the Mines and Minerals Act, 1962.

The acts and regulations which are administered by the department are as follows:

	<i>Page</i>
Mines and Minerals Act, S.A. 1962, Ch. 49	54, 62, 64, 66
Part II—Coal	54
Part III—Quarriable Minerals	55
Part IV—Minerals in Road Allowances	55

Part V—Petroleum and Natural Gas	55, 67
Petroleum and Natural Gas Reservation Regulations	55
Petroleum and Natural Gas Permit Regulations	55
Crown Reserve Drilling Reservation Regulations	56
Natural Gas Licence Regulations	56
Crown Reserve Natural Gas Licence Regulations	56
Crown Reserves	56
Part VI—Bituminous Sands and Oil Sands	56, 67
Bituminous Sands Regulations	57
Oil Sands Regulations	57
Part VII—Registration of Transfers and Documents	57
Part VIII—Unit Operation of Minerals	57
Part IX—Geophysical Exploration	64
Geophysical Regulations	64
Pipe Line Act, S.A. 1958, Ch. 58	65, 67
Pipe Line Regulations	65
Expropriation Procedure Act, S.A. 1961, Ch. 30	65
Clay and Marl Act, S.A. 1961, Ch. 14	57
Sand and Gravel Act, R.S.A. 1955, Ch. 296	57
Mineral Declaratory Act, S.A. 1961, Ch. 48	57
Coal Mines Regulation Act, R.S.A. 1955, Ch. 47	65, 67
Coal Mines Regulations	65
Coal Sales Act, R.S.A. 1955, Ch. 48	65
Quarries Regulation Act, R.S.A. 1955, Ch. 273	65
Quarries Regulations	65
Mineral Taxation Act, R.S.A. 1955, Ch. 203	63

There are certain other Acts which directly affect the mineral industry within the province. They are as follows:

Land Titles Act, R.S.A. 1955, Ch. 170	58
Public Lands Act, R.S.A. 1955, Ch. 259	58, 63, 68
Clay, Marl and Sand or Gravel Lease and Permit Regulations	58
Right of Entry Arbitration Act, R.S.A. 1955, Ch. 290	58
Surface Reclamation Act, S.A. 1963, Ch. 64	58
Workmen's Compensation Act, R.S.A. 1955, Ch. 370	64
Safety Regulations Governing the Construction of Pipelines	64
Safety Regulations Governing the Erection, Operation and Dismantling of	
Oil or Gas Well Drilling and Servicing Rigs and Derricks	64

Oil and Gas Conservation Board

The Board was established in 1938 and is constituted as a body politic and corporate under the Oil and Gas Conservation Act. The Board is composed of three members who are appointed by the Lieutenant Governor in Council. The Board is empowered to carry out the responsibilities set forth in the act, but in some instances requires prior approval of the Lieutenant Governor in Council. The Board directly employs its own staff. Expenditures of the Board are met through grants from the government of Alberta and from a levy on the owners of oil and gas properties in the province.

The functions of the Board under the Oil and Gas Conservation Act are to effect

the conservation of oil and gas, to prevent waste of these resources, to secure the observance of safe and efficient practices in all operations for drilling and production and to afford to each owner the opportunity of obtaining his just and equitable share of the production of any pool.

Under the same act the Board is responsible for the examination of schemes, either of an experimental or commercial character, of obtaining production from oil sands.

The Board is also charged under the Gas Resources Preservation Act with providing for the effective utilization of the gas resources of the province having regard to the present and future needs of citizens of the province.

To carry out its duties and responsibilities the Board is required to conduct investigations, hold hearings and prepare reports.

The acts and regulations administered by the Board are as follows:

	<i>Page</i>
Oil and Gas Conservation Act, S.A. 1957, Ch. 63	58, 64
Drilling and Production Regulations	61, 64
General Regulations	62
Gas Resources Preservation Act, S.A. 1956, Ch. 19	62
General Regulations Governing the Removal from the Province of Propane Otherwise than by Pipe Lines	62

Disposition of Minerals

MINES AND MINERALS ACT

The act applies to all minerals, and to all mines, quarries and wells in the province.

The specific rules for acquisition of minerals by staking as set forth in Part II—Quartz Mining, and Part III—Placer Mining, under the former Mines and Minerals Act have no counterpart in the present act. The Lieutenant Governor in Council is empowered, however, to make regulations governing quartz mining and placer mining but these regulations have not been made. Some prospecting permits have been issued for metals and minerals salts by authority of the Lieutenant Governor in Council.

Part II—Coal

Coal mining rights may be leased at an annual rent, payable in advance, of one dollar per acre. The lease is for a term of 21 years and is renewable for further 21-year terms.

The maximum area of a lease is 2,560 acres. If in surveyed territory, the tract must consist of sections or fractions thereof, all parcels must adjoin or corner and the length of the tract must not exceed four times the breadth.

If in unsurveyed territory the land applied for may be described as though it were surveyed into sections.

Application for a lease must be filed with the Recorder or the Director of Minerals.

The lessee must commence mining operations within one year from the date he is notified to do so by the Minister, and must produce the quantity of coal specified in the notice. The quantity of coal produced may be increased upon one year's notice to that effect being given to the lessee, and the quantity may be decreased at any time by the Minister.

Part III—Quarriable Minerals

The right to any Crown-owned quarriable minerals, other than coal, bituminous sands or oil sands, may be leased at an annual minimum royalty of \$50 or \$1.25 an acre, whichever is larger.

The term of lease is 21 years, and is renewable. The maximum area of a location shall not exceed one section or parts of sections which in the aggregate are not greater than one section, and may include an adjoining road allowance. Application for a lease must be filed by the applicant in person with the Recorder or Director of Minerals.

Work requirements are similar to those in effect on coal leases with respect to commencement of operations and quantity produced.

Part IV—Minerals in Road Allowances

(a) Coal Mining Leases

The provisions of Part II apply as far as practicable. The annual rental is \$10. The term of the lease or a renewal shall not exceed 21 years. The applicant must have the coal rights adjacent to one side of the road allowance. The lessee is responsible for any damage to a road allowance.

(b) Other Leases

Road allowance leases for other than coal, petroleum, natural gas, oil sands, bituminous sands or quarriable minerals require the approval of the Lieutenant Governor in Council.

Part V—Petroleum and Natural Gas

Crown petroleum and natural gas rights that are available for disposition may be leased at an annual rental of one dollar an acre. The term of a lease is 10 years, and may be continued if production has been obtained.

The maximum area of a location in the form of a square is nine sections or 5,760 acres. When a rectangle, the maximum is eight sections, or 5,120 acres, and is not to exceed four sections in length. The minimum area is one quarter section (160 acres).

A lease grants the right to petroleum and natural gas, but does not grant the right to bituminous sands or to the petroleum and natural gas that may be recovered therefrom.

(a) Petroleum and Natural Gas Reservation Regulations

These regulations apply to Crown petroleum and natural gas rights in the province except those in townships 1 to 64, west of the 4th meridian.

One reservation area may not exceed four and one-third townships and the term is for four months with six renewals possible. Reservations held by one person may be grouped for work purposes to a total of 200,000 acres.

A reservation grants the right to drill wells for petroleum or natural gas and the right to produce the same.

Leases of up to 50 per cent of the petroleum and gas rights in a reservation may be secured subject to these regulations.

(b) Petroleum and Natural Gas Permit Regulations

These regulations pertain to Crown petroleum and natural gas rights in townships 1 to 64, west of the 4th meridian.

A permit area is not to exceed 36 sections or 23,040 acres and the term is for six months with three renewals possible.

A permit grants the right to drill wells for petroleum and natural gas and to produce the same. Leases may be acquired on permit areas.

(c) Crown Reserve Drilling Reservation Regulations

A reservation is for a term of six months with five renewals possible. A reservation conveys the right to drill wells for petroleum and natural gas and produce the same. A lease or leases on a portion of the rights is obtainable.

(d) Natural Gas Licence Regulations

The holder of a reservation or permit of petroleum and natural gas rights, upon determining the presence of natural gas in drilling a well or wells, may apply for a licence for the natural gas rights in the zone or zones containing the natural gas.

The licence shall not contain more than 36 sections or 23,040 acres. The term is six months, renewable for five like periods.

The licence allows the holder to drill for natural gas and to produce the same. A lease or leases may be secured depending on the number of drilled and completed gas wells.

(e) Crown Reserve Natural Gas Licence Regulations

These regulations are the same as the Natural Gas Licence Regulations, except that they apply to Crown reserves of petroleum and natural gas rights and must be acquired by tender.

(f) Crown Reserves

In March of 1941 some fifteen areas comprising 14,112 square miles were established in the province as provincial reserves and the petroleum and natural gas rights in these reserves subsequently became known as Crown reserves. Six of these areas have been discontinued but nine still exist.

In addition when an area is acquired under petroleum and natural gas reservation and the reservation requirements have been satisfied, the holder has the right to apply for leases of up to 50 per cent of the acreage contained in each township. The remainder of the reservation area become Crown reserves.

The petroleum and natural gas rights in Crown reserves are disposed by offerings to the public in the form of leases, drilling reservations or natural gas licences or as ordinary reservations in provincial reserves.

Revenues from bonuses accepted from sales of Crown reserves have formed a major part of the revenues received by the department from petroleum and natural gas. During the period 1947 to 1964 revenues from these sources have almost equalled revenues from rentals and royalties.

Part VI—Bituminous Sands and Oil Sands

A series of regulations have been established under this Part which govern the disposition of bituminous sands or oil sands rights and the royalties payable on any production.

(a) Bituminous Sands Regulations

Bituminous sands rights may be obtained under permit or under lease. A bituminous sands prospecting permit may not cover more than 50,000 acres. The permit grants the right to search for, mine, quarry, work, and remove bituminous sands from permit lands and extract products from the sands for test work.

The term of a permit is one year. Two renewals of one year are allowed.

A lease of the permit lands may be obtained. The lease will cover sufficient bituminous sand reserves for an operation of at least 30 years. The lessee shall complete the construction of the plant or other works for processing the sands within five years of notice being given by the Minister. The term of lease is 21 years, renewable for like periods.

(b) Oil Sands Regulations

These regulations do not apply in the bituminous sands area located in townships 84 to 104, inclusive, in ranges 4 to 18, inclusive, west of the 4th meridian.

When the holder of a reservation or permit of petroleum and natural gas rights determines the presence of oil sands upon drilling a well or wells, he may apply for an oil sands prospecting permit or an oil sands lease.

The terms and conditions of an oil sands prospecting permit or an oil sands lease are identical with those of a bituminous sands prospecting permit and a bituminous sands lease, respectively.

Part VII—Registration of Transfers and Documents

Where Crown minerals are held under lease, licence, permit or reservation, documents and transfers pertaining thereto are registered with the Department of Mines and Minerals.

Part VIII—Unit Operation of Minerals

A unit operation is an operation where a number of locations or mineral claims have been merged, pooled, consolidated or integrated in order to effect efficiency and prevent waste.

CLAY AND MARL ACT

Clay and marl belong to the owner of the surface rights of the land and are not minerals. This act applies to all lands in the province and to the owners of the land, including the Crown in the right of Alberta.

SAND AND GRAVEL ACT

This act is similar to the Clay and Marl Act in that sand and gravel belong to the owner of the surface rights of the land and are not minerals.

The Clay, Marl or Sand and Gravel Lease and Permit Regulations, described under The Public Lands Act, is the legislation under which disposition of the rights to clay, marl, sand and gravel is made.

MINERAL DECLARATORY ACT

This act applies to all lands in the province and to the owners of the lands, including the Crown.

A schedule in the act declares that the substances contained therein are deemed to be minerals. The minerals are anhydrite, barite, bauxite, bentonite, diatomite, dolomite, epsomite, granite, gypsum, limestone, marble, mica, mirabilite, potash, quartz rock, rock phosphate, sandstone, serpentine, shale, slate, talc, thenardite, trona, and volcanic ash.

This act is designed to resolve doubts and uncertainties as to the classification of the above-noted substances. These doubts and uncertainties originated with the fact that separate titles to surface rights and mineral rights may be issued under the Lands Titles Act. It is desired that such titles will not be extinguished, restricted or enlarged by any change of views or differences of opinion involving the status of these substances.

PUBLIC LANDS ACT

This act, under which certain regulations pertaining to clay, marl, sand and gravel have been established, is administered by the Department of Lands and Forests.

(a) Clay, Marl or Sand and Gravel Lease and Permit Regulations

Permits and leases for the removal of clay, marl, sand or gravel from public lands may be obtained under these regulations.

LAND TITLES ACT

Certain sections of the Land Titles Act, which is administered by the Department of Attorney General, pertain to freehold minerals but not to minerals owned by the Crown.

Titles to freehold minerals are registered under the Land Titles Act.

Entry to Surface

RIGHT OF ENTRY ARBITRATION ACT

This act is administered by a Board of Arbitration under the Right of Entry Arbitration Act.

No person shall have the right of entry to or the use of the surface of any land for any mining or drilling operations until he has obtained the consent of the owner and occupant, if any, or has become entitled to entry by reason of an order of the Board of Arbitration.

The Board determines the amount of surface rights required by the operator, the amount of compensation payable, and any other conditions deemed necessary in granting the right of entry. The order of the Board is final.

SURFACE RECLAMATION ACT

This act is administered by the Surface Reclamation Council under the Department of Mines and Minerals.

The act pertains to the maintenance and reclamation of, and the recovery of rental for, the surface of land used in connection with mines, quarries, oil and gas operations and pipe lines to the satisfaction of the Council.

Oil and Gas Conservation

OIL AND GAS CONSERVATION ACT

The purposes of the Oil and Gas Conservation Act, administered by the Oil and Gas Conservation Board, are to effect the conservation of the oil and gas resources of

the province and to prevent their waste, to secure the observance of safe and efficient field practices and to afford each owner the opportunity of obtaining his share of the production of any pool. The Board must see that, in the light of sound engineering and economic principles, oil-field operations are so conducted that wells are properly located, spaced, drilled, equipped and produced so that the recovery of oil or gas from a pool is not lessened and reservoir energy is not improperly dissipated, that recovery enhancement techniques are used where suitable, that economic waste of gas is prevented, that proper storage facilities are used, and that oil or gas is not produced in excess of storage and transportation facilities or the demand for such products.

Certain basic information is required by the Board on all wells drilled in the province. This information is obtained by various tests, the taking of samples and the measurement of production. The information thus obtained is used by both the Board and industry in their study of oil and gas reservoirs.

Licences

The act applies to all wells drilled in the province whether on Crown land or freehold property.

A well may be drilled only after a licence has been issued to a person or company entitled to the oil or gas.

An application for a well licence is to be submitted to the Board on a prescribed form. Information required of an applicant includes the name proposed for the well, the well location, and the proposed program of drilling operations. The fee for a well licence is \$50.

Each application for a well licence must be accompanied by a survey plan showing the exact location of the proposed well with respect to the boundaries of the spacing unit and any structures or special features in the vicinity of the well location.

An application for a well licence or for the transfer to the applicant of a licence shall be accompanied by a deposit payable to the Provincial Treasurer to guarantee the proper drilling, control, completion, suspension or abandonment of the well unless, in the opinion of the Board, the applicant has a sufficient deposit with the Provincial Treasurer. The amount of the deposit is \$2,500 for one well and increased amounts for more than one well to a maximum of \$10,000 for seven or more wells. Provision is made for some variance in the requirements for licence fees and deposits for wells drilled for water or for gas for domestic purposes.

Drilling and Production

The act authorizes the making of regulations and special orders which prescribe various requirements some of which pertain to specific areas while others pertain to the province as a whole. Board inspectors make frequent checks on field operations to make certain that the regulations are being followed. More specifically they check to ensure that operations are being carried out in a safe manner; that avoidable waste of reservoir energy or produced fluids is not occurring at any well; the surface damage is being kept at a minimum; that the equipment and installations are such as to allow for proper well testing, the measurement of gas, oil and water and the obtaining of samples; and that measurements of oil, gas and water production are properly made and recorded.

Schemes for Improving Recovery

Board approval is required before an operator may proceed with a scheme for

recovery enhancement; injection in any pool of a substance or a form of energy; processing, storage or disposal of gas; gathering, storage and disposal of water produced from any pool; or the disposal of any fluid or other substance to an underground formation through a well. The Board and its staff carefully assess applications for such approval and frequently arrange for the application to be considered at a public hearing in order to permit all interested parties to make known their views. Where the Board is satisfied with the scheme proposed an approval to carry out the program is issued subject to certain terms and conditions.

The act also empowers the Board, in order to prevent waste, to require the injection into a pool of gas, air, water or other substances or to require that any gas be gathered, processed if necessary, and the gas or products therefrom marketed or injected into an underground reservoir.

In order to discharge its responsibilities under this section the Board makes detailed engineering studies to determine whether waste can be prevented. When the Board concludes that such a situation does exist a public hearing is convened at which time the owners in the pool are required to show why certain action should not be taken. The Board reviews the evidence submitted at the hearing and decides whether to issue an order requiring that certain measures be taken. Such orders are subject to appeal to the courts.

Regulation of Production Including Proration of Oil to Market Demand

The Board regulates the rate or production of all wells in the province on the basis of sound engineering and economic practices and with the intent of preventing waste, conserving resources and maintaining equity. With respect to oil wells the Board prorates production to market demand. Each month, following a public hearing at which prospective oil purchasers make known their requirements, the Board establishes a provincial allowable which is allocated among the producing oil pools in the province. The pool allocation is then distributed among the producing wells in the pool.

In 1963 the Board held a hearing to obtain the views of all interested parties with respect to the method of prorating oil to market demand. Following the hearing the Board announced the adoption of a plan which allocates production among pools on the basis of reserves and within pools on the basis of area modified by recovery factor.

With respect to gas the authority of the Board is limited to restricting the total amount that may be produced from any single pool. However, the Board may distribute this total among the wells in the pool.

Pooling and Unitization

A minimum area is required before a well may be drilled. Adjoining small tracts may be pooled voluntarily to give the required area or spacing unit. Where voluntary agreement cannot be obtained the Board may, upon application and after a public hearing, order that all tracts within a spacing unit be pooled.

The owners of all or part of a pool may combine voluntarily their interests to form a unit operation for the purpose of accomplishing the more efficient and more economical development and production of the oil and gas resources of the pool. The agreement for unit operations may not be put into effect until a copy of the form of the agreement has been filed with the Board.

No compulsory unitization provisions are in effect in Alberta.

Oil Sands

The oil sands, sometimes referred to as tar sands, contain hydrocarbon material which is highly viscous and which is not recoverable through a well by ordinary production methods. The act provides that a scheme or plan for the commercial or experimental recovery of hydrocarbon from oil sands may not be proceeded with unless the Board, with the approval of the Lieutenant Governor in Council has approved the scheme.

Upon receipt of an application to proceed with a commercial scheme the Board will convene a public hearing at which all interested parties may make known their views regarding the application.

Oil recovered from the oil sands is not subject to proration to market demand. However, it is the policy of the Alberta government to limit development where the product will be marketed in competition with Alberta conventional crude oil.

Transportation and Disposition

The Board, with the approval of the Lieutenant Governor in Council, may declare

- (a) the proprietor of a pipe line to be a common carrier.
- (b) a person who purchases, produces or otherwise acquires oil or gas in a pool to be a common purchaser of oil or gas from the pool or pools designated by the Board
- (c) a person who is the owner or operator of a processing plant to be a common processor.

Registers, Records and Reports

The Board keeps an official record of well names together with the name and address of each licensee, agent or well owner. Each well owner must keep a record of a well's daily production of oil, gas and water together with a record of sales or other disposition. He must file this data summarized on a monthly basis with the Board.

Proceedings before the Board

The Board has adopted rules of practice with respect to the filing of applications, the serving of notices and the submission of evidence at hearings.

Drilling and Production Regulations

For drilling purposes the normal spacing unit for an oil well is one quarter section and for a gas well is one section. The Board may issue orders creating drilling spacing units which differ in size from the normal unit. For producing purposes an operator may combine more than one drilling spacing unit to form a production spacing unit subject to certain conditions as set out in the General Regulations.

To obtain a production allowable based on the area of a spacing unit the well must be completed within a target area as specified in the regulations.

Abandoned wells must be effectively sealed and the land surface cleaned up and levelled.

Tests must be conducted on all wells drilled, such as the retention of rock cuttings and cores as required, electric or other suitable logs, hole deviation measurements and fluid samples for analysis.

A well for oil or gas may not be drilled within 330 feet of any right-of-way or permanent building without specific permission. Drilling in the proximity of a coal mine is permitted only after it has been established that reasonable precautions have been undertaken to protect both the mining and oil or gas operations from foreseeable harm.

Rules governing the confidential status of data submitted to the Board are set forth.

General Regulations

Procedures and standards are given for the measurement of gas, oil and water. Rules are given for determining the amounts of over-production and under-production. Regulations prescribe the rules concerning the formation of production spacing units and blocks. A formula is given by which to calculate the daily maximum production allowable for a gas well.

THE GAS RESOURCES PRESERVATION ACT

This act, also administered by the Oil and Gas Conservation Board, has as its intent and purpose the preservation and conservation of the oil and gas resources of the province and to provide for their effective utilization having regard to the present and future needs of persons within the province.

A person who proposes to remove gas or propane from the province must apply to the Board for a permit authorizing such a proposal.

The Board, with approval of the Lieutenant Governor in Council, may grant a permit for the removal of gas from the province only, if in its opinion, it is in the public interest to do so having regard to the present and future needs of persons within the province and the established reserves and trends in growth and discovery of reserves of gas in the province.

Upon receipt of an application, and after being satisfied that it is complete, the Board will convene a public hearing to provide an opportunity for all interested parties to make known their position. After the hearing the Board considers all of the evidence, makes any further studies that appear desirable and prepares a recommendation to the Lieutenant Governor in Council.

General Regulations Governing the Removal from the Province of Propane Otherwise Than by Pipe Lines

These regulations deal with the removal of propane in cylinder or bottle or by tank truck or railway tank car.

Mineral Taxation and Royalties

MINES AND MINERAL ACT

Under this act, the province reserves the right to receive a royalty on any mineral, including petroleum and natural gas, produced in the Province.

Royalty rates in effect are as follows:

Certain Quarriable Minerals

Bentonite	10¢ per short ton
Limestone, shale, granite, slate, gypsum or building stone	4¢ per short ton

Coal

10¢ per short ton

Salt

40¢ per short ton

Products from Petroleum and Natural Gas

(1) Crude oil

Monthly production (barrels)	Crown royalty per month
0-750	8 per cent of barrels produced
750-2,700	60 plus 20 per cent of barrels over 750
2,700 and over	16 ² / ₃ per cent of barrels produced.

- (2) With respect to other fluid hydrocarbons and sulphur obtained by processing natural gas, 16²/₃ per cent.
- (3) With respect to natural gas or residue gas sold or consumed for some useful purpose, 16²/₃ per cent of the selling price or fair value provided that in no event shall the royalty be less than three-quarters of a cent per 1,000 cubic feet, unless the Minister otherwise directs where such gas is processed to obtain liquid hydrocarbons, sulphur compounds or carbon dioxide.
- (4) The royalty on heavy crude oil may be reduced by an amount not exceeding 20 per cent.

Bituminous Sands Royalty

The royalty to be collected by the Crown on all products derived from the first authorized bituminous sands operation shall be that part of the products derived each month calculated, free and clear of any deductions, as follows:

(a) Monthly production (barrels)	Crown royalty per month
0-900,000	8 per cent of barrels produced
900,000 and over	72,000 plus 20 per cent of barrels over 900,000

- (b) With respect to each of the other products, 16²/₃ per cent.

PUBLIC LANDS ACT

Royalties payable under this act are as follows:

Clay used for pottery	10¢ per cubic yard
All other clay and marl	5¢ per cubic yard
Sand and gravel	10¢ per cubic yard

MINERAL TAXATION ACT

The Mineral Taxation Act applies generally to all minerals held in fee simple in the province and provides for the collection of taxes from all owners, part owners or

joint owners of a mineral or minerals. Provision is made for two forms of taxation, a mineral acreage tax, and a producing area tax.

The mineral acreage tax applies to every freehold title and is due annually. The maximum rate is 5¢ per acre, but may be fixed at a lesser rate.

Any producing mineral located within a designated producing area as defined by the act is subject to assessment and taxation. The tax levied on the assessed value of all principal minerals in each producing area is known as the producing area tax which is in addition to the acreage tax. The present rate of tax is eight mills on the dollar with a minimum tax payable of one dollar.

The principal mineral within a producing area is assessed under the act at the fair actual value which is computed in accordance with the following schedule:

The fair actual value for the purpose of assessment in any year of the petroleum within, upon or under the land allocated by the Minister to a well producing petroleum or petroleum and natural gas shall be 1.5 times the value, at the average field price during the first three months of the year in which the assessment is made, of all petroleum produced from the well during the preceding year.

The fair actual value for the purpose of assessment in any year of the natural gas within, upon or under the land allocated by the Minister to a well producing either natural gas alone, or both petroleum and natural gas, shall be four times the value at 3¢ per 1,000 cubic feet of the natural gas produced from the well during the preceding year.

Where petroleum and natural gas is subject to a lease, it is customary for the lessee to reimburse the mineral owner seven-eighths of the producing area tax. The only minerals in Alberta affected by the producing area tax are coal, petroleum, natural gas and salt.

Operating and Safety Rules

MINES AND MINERALS ACT

Geophysical Regulations

Control over the operating procedures involved in geophysical exploration work is exercised through these regulations.

OIL AND GAS CONSERVATION ACT

Drilling and Production Regulations

The regulations control locating, spacing, drilling, testing, completion and abandonment of wells drilled for oil and gas and other wells exceeding 500 feet in depth.

Rules restricting practices which may result in fire, pollution of the atmosphere, or the contamination of water supplies are given.

WORKMEN'S COMPENSATION ACT

This act is administered by the Workmen's Compensation Board which has made and enforces the following regulations:

- (a) Safety Regulations Governing the Construction of Pipelines.
- (b) Safety Regulations Governing the Erection, Operation and Dismantling of Oil or Gas Well Drilling and Servicing Rigs and Derricks.

COAL MINES REGULATION ACT

This act provides rules designed for safe operation in coal mines. It is administered by the Director of Mines and his mine inspectors.

Coal mining operations may not be carried out without a permit. Certificated mine officials must be in charge of all mining operations.

Other features contained in the act are the qualifications for certificates and examinations; the persons employable and the hour of work.

Coal Mines Regulations

These regulations cover examination fees and qualifications of candidates for certificates, orders concerning compressed air blasting, electrical work, electrical equipment and apparatus and use of electricity, approval of shot-firing devices, explosives, safety lamps and gas detectors.

QUARRIES REGULATION ACT

This act applies to all quarries, including certain sand and gravel operations which are designated as quarries by the Director of Mines.

Provision is made for the appointment of inspectors and other employees required to administer the act.

A permit to operate a quarry must be obtained. Permission to abandon a quarry requires written consent from the Director of Mines.

Quarries Regulations

These regulations concern the care and use of explosives and general safety precautions for quarries.

Other Acts

PIPE LINE ACT

This act applies to all pipe lines within the province with some exceptions as detailed in the act.

An application for a permit to construct a pipe line must be made to the Department of Mines and Minerals. A licence to operate the line is also necessary.

Pipe Line Regulations

These regulations deal mainly with surveys on the right-of-way and the type of signs necessary along the route of the line. The symbols to be used on surveys or plans are designated.

EXPROPRIATION PROCEDURE ACT

The act provides for the expropriation of interest in land for pipe lines and ancillary installations. It is administered by the Public Utilities Board which is formed under the Utilities Board Act.

COAL SALES ACT

Coal is to be classified according to its nature and properties. A name for the coal sold must be registered by the mine operator with the Director of Mines.

All coal is to be sampled and analysed and no coal shall be advertised or sold unless it conforms to the official commercial analysis of the coal.

Each mine operator and dealer must state on the sales invoice, the name and address of the mine or plant from which the coal is sold, the registered trade name, the coal area where mined, size grading, group classification, the weight of the coal and a statement that the coal conforms to the official analysis.

Schedule of Fees

MINES AND MINERAL ACT

Application for:

petroleum and natural gas lease	\$ 10.00
natural gas lease	10.00
lease of any other mineral	5.00
geophysical permit	25.00

Transfer of:

petroleum and natural gas lease	10.00
natural gas lease	10.00
reservation of petroleum and natural gas	10.00
natural gas licence	10.00
prospecting permit	10.00
lease of any other mineral	5.00
portion of the location of a lease	25.00
Certified copy of a transfer	2.50
Request to reduce the area of a lease	2.50
Request for each division of a lease	25.00

Renewal of:

petroleum and natural gas lease	10.00
natural gas lease	10.00
lease of any other mineral	5.00
geophysical permit	25.00
Reinstatement of a lease—10¢ an acre, subject to a minimum charge of	10.00
and a maximum charge of	250.00

Filing of, except for labour:

mechanic's lien	5.00
discharge of a mechanic's lien	3.00
certificate of lis pendens	3.00
Search of a lease, licence, reservation, permit or other agreement verbal	0.50
written	1.50
Certified copy of a lease, licence, reservation, permit or other agreement	5.00

Oil or Bituminous Sands Prospecting Permit:

Application Fee	\$ 250.00
Rental for one year, per acre	0.05
Deposit	50,000.00
Second year renewal rental, per acre	0.10
Third year renewal rental, per acre	0.10

Crown Reserve Natural Gas Licence or Natural Gas Licence:

Fee	250.00
Rental first 6 months, per acre	0.05
Five renewals, 6 months each, rental per acre	0.05

Crown Reserve Drilling Reservation Regulations

Fee	250.00
Rental first 6 months, per acre	0.25
Five renewals, 6 months each, rental per acre	0.25

Petroleum and Natural Gas Permit

Fee	10.00
Rental first 6 months, per acre	0.50
Three renewals, 6 months each, rental per acre	0.50

Petroleum and Natural Gas Reservation

Fee	250.00
Deposit, each 20,000 acres	2,500.00

Coal Lease

Fee	5.00
Rental per year, per acre	1.00

Coal Lease in Road Allowances

Annual rental	10.00
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Quarriable Minerals Lease

Fee	5.00
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PIPE LINE ACT

Permit	10.00
Licence other than a provincial licence	10.00
An amendment to a permit or licence	10.00
An extension of a provisional licence for a pipe line other than a private or distribution line	10.00
Registration of a transfer of:	
a permit	10.00
licence	10.00

Registration of an instrument of hypothecation with aspect to	
a permit	\$ 5.00
a licence	5.00
Certified copy of a permit	
for the permittee	2.50
for other than the permittee	5.00
Certified copy of a licence	
for the licensee	2.50
for other than the licensee	5.00
Certified copy of a transfer	2.50

PUBLIC LANDS ACT

Clay, Marl or Sand and Gravel

Lease application fee	\$10.00
Permit application fee	25.00 or 5¢ per acre, whichever is larger.

Principal Officials

1. DEPARTMENT OF MINES AND MINERALS

Minister
Deputy Minister
Director of Minerals
Superintendent of Mineral Tax
Director of Mines
Superintendent of Pipe Lines
Superintendent of Technical Division

Inquiries for detailed information on and requests for copies of the various acts and regulations referred to above may be directed to the Deputy Minister, Department of Mines and Minerals, Edmonton, Alberta.

2. OIL AND GAS CONSERVATION BOARD

Inquiries may be addressed to the Chairman, Oil and Gas Conservation Board, Calgary, Alberta.

SASKATCHEWAN

The province was established in 1905 by the Saskatchewan Act. The area had formerly been a part of the Northwest Territories. The act provided that, in general, the terms of the British North America Act would apply to the province, but that control over the natural resources would remain vested in the Government of Canada.

In 1930, the Saskatchewan Natural Resources Act transferred full control of the natural resources to the province except in National Parks and Indian Reserves.

Mineral rights in Saskatchewan have been granted under a leasing system since 1930. Although the mineral rights to substantial areas were alienated to the railways, the Hudson's Bay Company and settlers during the period prior to 1930, the province retains title to the mineral rights over approximately 50 per cent of active oil and gas producing areas and 86 per cent of all lands in the province.

Titles to freehold mineral rights are registered under the Land Titles Act. Permittees and lessees of Crown-owned mineral rights are recorded by the Department of Mineral Resources.

DEPARTMENT OF MINERAL RESOURCES

The Department of Mineral Resources Act, 1959, delegated to the department control over the administrative duties concerning minerals in the province which relate to their discovery, management, utilization and conservation.

Under The Mineral Resources Act the department disposes of Crown-owned mineral rights and collects certain levies in the two general fields of metallic and industrial minerals, and of petroleum and natural gas.

The department is responsible for the determination and supervision of proper conservation methods under The Oil and Gas Conservation Act and Regulations.

The Oil and Gas Conservation Board is an advisory body. Members are appointed by the Lieutenant Governor in Council. The Board now consists of four members. The

Chairman of the Board is the Deputy Minister of the Department of Mineral Resources. The staff are employees of the department.

The act and regulations which are administered by the department are as follows:

	<i>Page</i>
The Mineral Resources Act, 1959	70, 83, 86, 88
The Mineral Disposition Regulations, 1961	70, 83, 88
The Subsurface Mineral Regulations, 1960	73, 83, 88
The Petroleum and Natural Gas Regulations, 1963	74, 83, 89
The Oil Shale Regulations, 1964	77, 83, 89
The Helium and Associated Gas Regulations, 1964	77, 84
The Alkali Mining Regulations	78, 84, 90
The Coal Mining Regulations, 1957	78, 84, 90
The Quarrying Regulations, 1957	79, 84, 90
Geophysical Exploration Regulations, 1964	86, 91
Prospecting Incentive Program, 1964	87
The Road Allowance Crown Oil Act, 1959	85
The Sand and Gravel Act, 1955	80
The Oil and Gas Conservation Act, 1953	80, 86, 91
The Oil and Gas Conservation Regulations, 1962	82, 86, 91
The Pipe Lines Act, 1954	86
The Pipe Lines Regulations, 1954	87
The Mineral Taxation Act, 1953	85
The Mines Regulation Act, 1953	85
Regulations Governing the Operation of Mines, 1953	85
The Coal Miners' Safety and Welfare Act, 1953	86
The Coal Mining Industry Act, 1953	87
The following act also directly affects the mineral industry within the province:	
The Mining, Smelting and Refining District Act, 1953	87

Disposition of Mineral Rights

THE MINERAL RESOURCES ACT

The purpose of the act is to promote and encourage the discovery, development, management, utilization and conservation of the mineral resources of the province; to regulate the disposition of Crown mineral lands; to protect the rights of surface and mineral owners; and to promote safety in mines.

The act authorizes the making of regulations to carry out these objectives.

Mineral rights in provincial parks are open for disposition under the standard rules administered by the department.

The Mineral Disposition Regulations, 1961

These regulations govern the disposal of all Crown-owned deposits of all naturally occurring minerals except those minerals that may be dealt with under any other regulations or orders of the Lieutenant Governor in Council under The Mineral Resources Act, 1959, or any mineral that in the opinion of the Minister forms part of the arable surface of the land.

No permit or licence is required for any person to stake claims or claim blocks.

Mineral Claims and Claim Blocks

A claim in unsurveyed territory may not exceed 40 acres in area nor a side of a claim exceed 1,980 feet in length. A claim is marked out on the ground by erecting a post at each of the four corners, and clearly delineating the outer boundaries by blazing trees, cutting brush or placing pickets. The bearings of the boundaries must be within 30 degrees of astronomic north and south, east or west except along a side or sides which tie on to a previously staked location. Metal tags, which may be purchased from a recorder prior to or at the time of recording the claim must be affixed to each post within one year of recording. In treeless territory cairns may be substituted for claim posts.

In surveyed areas, a claim consists of one legal subdivision (40 acres).

A claim block may comprise not less than one and one-half sections (960 acres) nor more than twenty-four sections (15,360 acres) in a surveyed area, and not less than 960 acres nor more than 15,360 acres in an unsurveyed area.

In unsurveyed territory, the length of a claim block shall not exceed six times the width. Posts must be erected at all corners, and boundary lines clearly marked, by blazing trees, cutting underbrush or placing pickets. Posts must be erected at intervals of not more than one-half mile along the boundaries of the claim block. Metal tags obtainable from a mining recorder must be affixed to the four corner posts of the claim block either at the time of staking or within one year of the date of recording. If tags are not affixed at the time of staking, the staker must inscribe on the corner posts his name and the proper post number.

An application for recording a claim block in surveyed territory, together with a fee of 15¢ an acre must be made to a mining recorder giving the full legal description of the claim block together with a plan of the location.

An application to record a claim block in unsurveyed territory, in addition to the required fee, must be accompanied by a plan showing as nearly as possible the position of the claim block in relation to the topographical features of the locality and to adjoining dispositions if any, or to some known fixed point, and showing the position of all claim block posts along the boundary lines.

A claim or claim block conveys exclusive rights to prospect and explore for minerals and, if the required assessment work is carried out, the claim or claim block may be held for a term of 10 years from the recording date. The holder of a claim block in good standing, at any time after 3 years from the date of recording, may reduce the size of his holdings to blocks comprising not less than 640 acres in each block.

Permits

Upon receipt of the application fee of \$25 and a bond of \$25,000 the Minister may grant a 3-year permit giving exclusive rights to prospect and explore for minerals covering an undisposed area of not less than 36 square miles nor more than 300 square miles. Rental is payable annually in advance at the rate of 2¢ per acre or \$1,000 whichever is the greater. A permit may be applied for any time but will only be issued between December 1st and March 31st of the following year.

Leases

Mineral claims and claim-block areas must be taken to lease after 10 years and permit areas after 3 years.

Upon application for lease claim blocks and permit areas may be taken in one or more leases. Each individual lease parcel shall be rectangular in shape. The length cannot exceed six times the width. The lease is for 21 years and is renewable for a like term. Contiguous leases in good standing may be consolidated.

Grouping

A maximum of 36 contiguous claims may be grouped once in any one year for the purpose of applying assessment work done on one or more claims to any or all claims in the group.

Assessment Work

The minimum annual assessment work required for each disposition is as follows:

- (a) *Claim*: first year—no work required
second to tenth years inclusive—\$100 per year.
- (b) *Claim block*: first year—no work required
second to tenth years inclusive—\$2.50 per acre per year.
- (c) *Permit*: first year—\$30,000; second year—\$45,000; third year—\$60,000.
- (d) *Lease*: \$5 per acre.

Assessment work shall consist of rock trenching and stripping; shaft sinking and underground work; core drilling, geological, geophysical and geochemical, and legal surveys; travelling and transportation costs of men and equipment not exceeding 20 per cent of the cost of work, or any other work approved by the Minister.

Proof of expenditures covering the minimum assessment work done must be submitted in a prescribed form within 90 days following each year in which work is required to be performed on claim, claim blocks and leases and 90 days in the case of a permit.

Expenditures in excess of that required in any one year on a claim, claim block or permit, may be carried over to any subsequent year and to the first year only of the lease, but excess expenditures established on mineral claims prior to April 1, 1962 may be credited toward the work commitments for the first 3 years of the lease period.

Expenditures performed on a lease area in excess of that required may be credited to subsequent years.

In case of a deficiency in the amount of work required in any year on a claim, permit, claim block or lease, money may be paid in lieu of work, provided it is paid prior to the anniversary date of the disposition.

Developed Area

A maximum of 1,440 acres of a disposition area may be designated a developed area by the disposition holder at the request of the Minister when commercial production commences, or upon the expenditure of \$50,000 in underground mining on the basis of one acre for each \$100 spent. No work is required to be done on a developed area and any work done cannot be used for assessment work purposes.

Rental is payable annually at the rate of one dollar per acre or \$200, whichever is the greater.

The Minister may revert the developed area designated, when commercial production

commences, to its former status if the disposition holder ceases or suspends mining operations.

Surface Rights

Dispositions do not convey any surface rights. The disposition holder must compensate the surface owner of the land for any surface that may be required or damaged as a result of his mining operation. In default of agreement the matter is settled by an arbitration board whose decision is final.

General

Upon written application, a disposition holder may surrender his disposition and upon the approval of the surrender, he may, within 90 days or such further period prescribed by the Minister, remove any machinery or personal property from the disposition area.

Ores and minerals mined under these regulations must, except as otherwise provided by the Minister, be treated and refined within the province. Application for permits to export ores or partially treated minerals are generally approved.

Disposition areas which lapse are not available for restaking until posted. Lapsed claim lists are posted in each of the recording offices at least 15 days prior to the date of reopening and copies of such lists are available to the public at a nominal fee.

The Subsurface Mineral Regulations, 1960

These regulations apply particularly to potash deposits.

They govern the disposal of Crown owned subsurface mineral rights including all natural mineral salts of boron, calcium, lithium, magnesium, potassium, sodium, bromine, chlorine, fluorine, iodine, nitrogen, phosphorus, sulphur, and their compounds, lying more than 200 feet below the agricultural surface of the land or such other minerals as may be designated from time to time by the Lieutenant Governor in Council.

Prospecting Permits

The application for a prospecting permit is to be accompanied by a description and plan of the area, a fee of \$25, the first year's rental, a deposit of \$2,000, details of planned work, and the applicant's financial statement.

The permit gives exclusive rights to prospect and explore for subsurface minerals on a block of contiguous lands not exceeding 100,000 acres. Substances for test purposes may be removed from the permit area with the written consent of the Minister. The term of the permit is 5 years subject to three extensions of one year each. Rental for a 5-year permit is at a rate per acre of 2¢ for each of the first and second years, 5¢ for the third and 10¢ for each of the fourth and fifth years.

The permittee must spend \$40,000 on the permit area in each of the second and third years and \$80,000 in each of the fourth and fifth years. Proof of such expenditures is to be submitted within 90 days after the expiration of the year in which work is required to be done. In case of a deficiency in the amount of work required, the permittee may pay money in lieu of work or post a bond equivalent to the amount of the deficiency. Such deposit is refundable at any time during the first five years of the permit upon proof of expenditures equal to the deficiency and work commitment required for the

subsequent year of the permit or to the \$3,000,000 expenditure required under the lease.

Adjoining permits may be consolidated under one permit of not more than 100,000 acres of contiguous Crown lands. If all information required under the regulations is submitted the bond of \$2,000 is refundable. The permittee is entitled to a lease provided the permit is in good standing at the time application is made.

Leases

Contiguous subsurface mineral rights of not less than 12,000 acres nor more than 100,000 acres may be leased by the Minister for terms of 21 years each at an annual rental of one dollar for the first 12,500 acres and 10¢ for each additional acre. Undisposed statutory road allowances adjoining and connecting any lands described in the disposition area are included in the lease. The lease must be reduced to not more than 37,500 acres within 10 years from the date of issue and may be taken in not more than three blocks of not less than 12,000 acres each, unless the production capacity of the mine exceeds 500,000 tons of ore annually. For each 100 tons of annual capacity in excess of 500,000 the lessee may hold an additional one and one-half acres. The applicant, before the lease is issued, must deposit \$25,000 with the department as a guarantee that an expenditure of \$3,000,000 will be made on the lease area within the first three years of the lease. The time for making such expenditures may be extended for cause.

General

Drilling operations must be carried out including licence requirements in accordance with The Oil and Gas Conservation Act.

A detailed report of the nature and results of prospecting operations is to be submitted within 90 days following the end of each year of the term of the disposition until such time as commercial production commences. The Minister may impose a penalty of \$25 for every day a default exists.

All information filed with the department on the potash bearing formation for any disposition is confidential so long as the disposition remains in good standing.

A disposition holder must, prior to the commencement of operations for solution mining, notify the Minister of the method by which he intends to carry out such operations. If the method so employed damages, or is likely to damage any mineral substances, the Minister may require the holder to cease operations. Test holes for solution mining may not be drilled within 2,000 feet of the outer boundary of the disposition area without consent.

The disposition conveys no right to the use of the surface. Such rights must be acquired as set forth in The Petroleum and Natural Gas Regulations.

The Petroleum and Natural Gas Regulations

The Petroleum and Natural Gas Regulations, 1963 cover the disposition of Crown petroleum and natural gas rights.

Bonus bids are received on the disposition of Crown lands which may be disposed as:

- (a) exploratory permits;
- (b) drilling reservations; or
- (c) petroleum and natural gas leases.

Once exploratory work on a permit has been completed the company is required to return a part of the area as a Crown reserve. Subsequently, the department is in a position to dispose of these semi-proven and proven lands to the highest bidder.

Exploratory Permits

A permit to explore for petroleum and natural gas may be granted for any area of Crown land not exceeding 100,000 acres. The term of the permit is for 5 years.

Rent for the 5-year permit is at the rate per acre of 2¢ for the first and second years, 5¢ for the third, and 10¢ for the fourth and fifth years.

The permittee must expend 20¢ an acre or \$10,000, whichever is greater, on exploration of the permit in each of the first two years, 40¢ an acre or \$15,000 in the third year and 60¢ an acre in each of the last two years.

Excess expenditures may be credited against succeeding years requirements.

A permittee who has acquired more than one permit involving Crown lands may group such permits, within certain limitations, and for assessment purposes work on the group may be made applicable to all lands involved. Grouping may also be applied to permit areas held by two or more persons.

When drilling has proved the presence of oil or gas in commercial quantities, the permittee must, within 90 days of being so notified by the department, apply for a lease of a rectangular area of not less than 1,280 acres containing the discovery well. Until such application is made, the permittee may not drill on any other Crown lands within 3 miles of the discovery well.

The permittee has the exclusive right to lease other lands included in the permit during its term and for 60 days after termination unless the termination is due to default.

Drilling Reservations

The Minister may, either upon his own motion or upon the application of an interested party, set aside areas of Crown lands and Crown reserves as drilling reservations.

Such areas shall be disposed of by cash bonus bids. Bids must be accompanied by the cash bonus bid, a reservation fee of \$250, and rent for the first year at 50¢ an acre. A reservation may not exceed 20,000 acres.

The term of a reservation is one year, and two renewals may be granted at an annual rent of 50¢ an acre. It entitles the holder to explore for oil and gas, but not to produce or recover either until a lease has been secured, except to the extent necessary to establish whether or not commercial quantities are present. If drilling has been carried on in a manner satisfactory to the Minister, the holder may apply for a lease. Such application must be made within 60 days of the expiration of the reservation. The application may not apply to an area greater than 50 per cent of the area of the reservation, unless the operator has discovered gas, in which case he may obtain a lease on all of the reservation area, but must surrender the oil rights in the discovery zone.

If oil or gas in commercial quantities is discovered, the reservation may be cancelled, in which case the holder shall have 60 days in which to apply for leases. No further drilling may take place on lands in the reservation until a lease or leases have been granted. A reservation is terminated as soon as a lease application is made.

Acquisition of Leases by Bids and Offers

Leases obtained by sale, instead of those obtained from permit or drilling reserva-

tions, are subject to the same regulations as those leases obtained as a result of permit and drilling reservation.

Regulations Applying to all Leases

The area of a petroleum and natural gas lease must not be less than 40 acres, unless by consent of the Minister, or more than 7,840 acres; all lands in a lease must adjoin.

The application must be accompanied by a plan of the area, a legal description if in surveyed territory, rent at a rate of 5¢ per acre for each month between the date of the lease and the first of April following, an application fee of \$10 and, if not already recorded, the names and addresses of the director and officers where the applicant is a corporation.

The term of a lease is 10 years from the effective date plus such additional time which will bring it to the next April 1. It may be renewed for further periods of 10 years. Rent subsequent to that referred to above is one dollar an acre annually, subject to certain conditions as to credits for work previously performed or, in certain circumstances, performed during the term of the lease.

The lessee holding more than one lease of Crown lands may, by consent of the Minister, group or regroup his holdings and, for the purpose of securing refunds for work performed, such work done on any part of the area shall apply to all lands in the group.

The maximum area in a group is 23,040 acres or in special cases 46,080 acres, and no portion may be separated by more than 2 miles from any other portion in the group.

The lessee must, within six months of a request by the Minister, begin drilling, and failure to do so may result in cancellation.

If leased lands are adjoined by privately owned lands from which commercial production of oil or gas being secured from a formation to which the lease applies, the Minister may require the lessee to drill within 90 days or to pay to the Crown such royalties as might have accrued if such wells were in operation, or to surrender to the Crown the lands involved.

Surface Rights

This part of the regulations deal with the acquisition of surface rights in connection with drilling relative to wells licensed under The Oil and Gas Conservation Regulations.

It applies to all cases except those where the surface and minerals are owned by the same person.

Any surface lease entered into where this part applies must be in a standard or approved form.

The owner of the surface is entitled to full compensation for any loss or damage caused by the operator, as well as an annual rent for land required for the operation of the well.

In the case of disagreement between the surface owner and the operator, provision is made for settling the matters in dispute by arbitration and the decision so reached is final. The operator may apply to the Minister for permission to enter forthwith upon the area described in the notice of application for arbitration. Such application must be accompanied by a deposit of \$800, and the Minister may on receipt thereof grant a permit to enter on and use the area for a well site and roadway.

The Oil Shale Regulations, 1964

These regulations govern the disposal of Crown-owned rights to oil shales and tar sands.

Prospecting Permit

An application for a permit is to be accompanied by a description and plan of the area, details of planned work, the first year's rental, and an applicant's financial statement. A permit may cover up to 100,000 acres.

A permit gives the right to explore, mine, quarry and work the permit lands for oil shales but not to remove, produce or recover, except for test purposes, oil shale products from such shales until a lease has been granted.

The maximum initial term for a permit is 5 years but three one-year extensions may be granted.

Rental

The annual permit rent is 2¢ per acre per year for first and second years; 5¢ in the third year; and 10¢ in the fourth and fifth years. Rental credits may be allowed.

The permit holder must expend in work the following minimum amounts per acre: 2¢ in first year; 4¢ in the second; 6¢ in the third; 8¢ in the fourth; and 10¢ in the fifth year.

The Minister may grant to an applicant a lease of the rights to oil shales. The area that may be included in one lease must not be less than one legal subdivision (40 acres) and must be contiguous.

The application fee is \$10. The term of the lease is 21 years, and is renewable. The annual rental during the lease period is one dollar per acre.

The Helium and Associated Gases Regulations, 1964

These regulations govern the disposition of Crown rights to helium and associated gases where "associated gases" means naturally occurring gas or gases excluding helium and hydrocarbon gases.

A permit may cover up to 100,000 acres. An application for a permit must be accompanied by the first year's rental, a description and plan of the area, plans for work, and proof of the applicant's financial ability.

Subject to the Geophysical Exploration Regulations, a permit grants the right to explore the permit lands for helium and associated gases but not to remove, produce or recover such until a lease has been obtained.

The maximum term for a permit is 5 years. Three one-year extensions may be granted.

The permit rent payable annually is 2¢ per acre in each of the first and second years; 5¢ in the third year; and 10¢ in each of the fourth and fifth years.

The permittee must expend on exploration at least 20¢ per acre or \$10,000, whichever is greater, in each of the first and second years. In the third year required expenditures are 40¢ per acre or \$15,000, whichever is the greater.

In each of the fourth and fifth years, the expenditure must be the greater of 60¢ per acre or \$20,000, whichever is greater.

The Minister may grant to applicant leases of rights to helium or associated gases.

The area that may be included in one lease is a minimum of one legal subdivision (40 acres), unless otherwise approved by the Minister, and a maximum of forty-nine quarter sections (7,840 acres).

The term of a lease is 21 years with a provision for renewal. The annual rental is 50¢ per acre.

The Alkali Mining Regulations

The Minister may grant leases for Crown-owned natural accumulations of soluble mineral salts and associated marls.

The minimum area of a lease is 40 acres and the maximum 1,920 acres. Further areas may be secured by assignment up to a maximum of 9 square miles.

Leases run for 20 years, renewable for a like term, at an annual rent of 25¢ per acre.

The lessee must expend on each lease or group of leases, in actual development or in related experimental work, a total of \$10,000, of which at least \$2,500 must be expended in each of the first two years, and the balance during the third.

The Minister may issue permits, to harvest sodium sulphate from Little Lake Manitou, valid for an indefinite period. The permit fee for a resident of the district is one dollar and the royalty is 10¢ per 100 pounds. Non-residents must pay a \$5 permit fee and a royalty of 25¢ per 100 pounds.

No lessee may enter upon or use for mining purposes any privately owned surface, except by agreement with the owner or in case of dispute by the ruling of the arbitration board.

The Coal Mining Regulations, 1957

These regulations govern the disposal of coal mining rights on Crown lands.

Prospecting Permits

An application must be submitted to the Minister accompanied by an application fee of \$5 rental, a plan and description of the area and details of work and expenditures to be made on the permit area. The permit, when granted, gives exclusive rights to explore and prospect for coal on an area not exceeding 1,920 acres but not the right to mine any coal except to the extent necessary to prove the deposit. The term is 12 months subject to two extensions of 6 months each. Rental is payable in advance at the rate of 10¢ per acre for the original 12-month period and 10¢ per acre for each 6-month extension. A statement covering expenditures and results of operations on the permit area is to be submitted within one month following the end of the permit year. The permittee may apply for a lease or leases on any or all of the area prior to expiration of the permit.

Leases

Contiguous Crown-owned coal rights not exceeding 640 acres may be leased by the Minister at an annual rental of one dollar per acre for terms of 21 years each. Application for such lease is to be submitted to the Administrator of Mining Lands accompanied by the application fee of \$5.

Licence

Upon receipt of the application fee of one dollar and royalty on the number of tons to be taken, the Administrator of Mining Lands may issue a licence to remove a

maximum of 100 tons from an area not greater than one acre. Every licence expires on March 31 following date of issue or whenever the amount specified in the licence is taken, whichever is the sooner. The licence does not convey any right to sell any of the coal.

The Quarrying Regulations, 1957

In these regulations the term "quarriable substance" includes bentonite, building stone, clay, granite, gravel, gypsum, limestone, marble, marl, sand, slate, volcanic ash and any other substance that may be declared a quarriable substance by the Lieutenant Governor in Council.

Prospecting Permits

The application for a prospecting permit must be accompanied by the application fee of \$25, a bond of \$500, the annual rental, a legal description of the area, details of work and expenditures to be made on the permit area, as well as a financial statement of the applicant.

The permit gives exclusive rights to explore and prospect for quarriable substance on one contiguous solid block not exceeding 25 square miles. Quarriable material can not be removed from the permit area except for experimental purposes. The term of the permit is one year subject to two extensions of 6 months each. Rental is payable in advance at the rate of 5¢ per acre for the initial 12 months and 5¢ for each 6-month extension.

Work must commence on the permit area within 60 days following the commencement date of the permit unless such time is extended by the Minister. Proof of expenditures is to be submitted within 60 days following the end of the permit year. If the conditions of the permit are met, the \$500 bond is refundable and the permittee may apply for one or more leases, the total area of which may not exceed 640 acres.

Leases

Crown-owned quarriable substance may be leased at an annual rental of one dollar per acre. The lease is for a term of not more than 21 years, renewable for further like periods. The maximum lease area is 640 acres and the length can not exceed twice its breadth.

While the lease conveys exclusive rights to remove and dispose of the quarriable substance, the Minister's consent is required to ship or export material out of the province. The lessee is required under penalty of forfeiture, to commence quarrying operations whenever requested to do so by the Minister and submit production returns every three months.

Licences

A licence to remove up to 500 cubic yards of quarriable material may be issued upon receipt of the required fee of one dollar and royalty for the number of cubic yards to be taken. Every licence expires on March 31 following the date of issue or when the amount stated in the licence is taken, whichever is sooner. The maximum area that may be held under licence is 40 acres and not more than two licences may be held at the same time.

Surface Rights

A quarrying disposition does not convey any surface rights. The disposition holder must pay reasonable compensation to the surface owner. In case of a dispute, the matter may be referred to the arbitration board appointed under The Petroleum and Natural Gas Regulations. The decision of the board is final.

General

Quarrying dispositions in unsurveyed territory must be staked out in tracts of not more than 40 acres by erecting a post at each of the four corners, by marking the posts with the proper inscriptions and by marking out boundary lines between posts. Application for recording must be submitted within 30 days from the date staked.

Quarrying dispositions may not be assigned without the prior consent of the Minister.

The permittee may not conduct his operations so as to interfere with or affect the security of the banks of the river or lake or of any structure erected in the waters concerned. The operations must be conducted so as to disturb the natural conditions as little as possible, and particularly so as not to interfere with the use of the water for navigation or other purposes by the formation of bars or banks in the channel or bed thereof.

THE SAND AND GRAVEL ACT

The surface owner is entitled to all sands and gravel found on the surface of the land and that which is obtainable by stripping off the over-burden or other surface operation.

The owner of the mineral rights is also entitled to all volcanic ash, marl, bentonite, ceramic clays and other industrial clay except any clay required for the construction of an earthen dam or road grade.

Oil and Gas Conservation

THE OIL AND GAS CONSERVATION ACT, 1953

The purpose of the act is to prevent waste, encourage the greatest ultimate recovery of oil and gas, protect the correlative rights of each owner and enable each owner to obtain his just and equitable share of the allowable production from any pool.

Administration

The Department of Mineral Resources is charged with the responsibility of administering the act.

The act also authorizes the formation of an Oil and Gas Conservation Board which acts in an advisory capacity to the Minister. The Board conducts hearings and formulates recommendations on conservation matters which are referred to it by the Minister.

Licences

A licence is required before any well may be drilled which is related to the production of oil and gas or is drilled in exploring for potash.

Any company licenced or registered under The Companies Act that has complied

with the regulations and orders under The Oil and Gas Conservation Act is entitled to a licence.

Regulations and Orders

The Minister is empowered to designate any specified area as a pool or field. Within such pools or fields he may regulate, limit and allocate the production of oil and gas and regulate well spacing, drilling, rate of production, secondary recovery procedures, disposal of wastes, and abandonment of wells.

The Lieutenant Governor in Council may make regulations and orders concerning all oil and gas conservation matters within the province.

Oil and Gas Production

Allowable rates of production from all oil and gas wells are established to prevent waste.

The Minister may prorate production in accordance with market demand, but this has not been applied within the province.

Drainage units are established of a uniform size and shape for wells in each pool or field to provide efficient and economical development and to ensure a just and equitable share of the pool or field to each owner.

Provision is made for the pooling of the tracts of two or more owners to ensure that drainage units within a field or pool are of uniform size and shape. If a voluntary agreement for pooling is not reached, the Board may recommend compulsory pooling after a hearing.

Unit Operation

The Board may hold hearings to determine the desirability of grouping leases in a field or pool to operate as a unit. The Board may recommend that a unit be formed if it finds that the recovery of oil and gas would be substantially increased, or that the increased returns will exceed additional costs, or that there is a general advantage to the owners.

An order forming a unit will allocate to each owner the proportion of costs incurred and of oil and gas produced through the operation of the unit. An order also provides for the formation of a committee composed of representatives of the owners. The committee is required to appoint an operator who, under the direction and supervision of the committee, is empowered to manage the operation of the unit.

An order may also extend a unit or incorporate it into a larger unit.

Hearings

Hearings by The Oil and Gas Conservation Board may be ordered by the Minister on his own initiative or upon the request of an interested person. Rules of practice and procedure are set forth.

Ancillary Operation

Plans for secondary recovery, for the processing, storage or disposal of gas and for disposal of water require the prior approval of the Minister.

The Oil and Gas Conservation Regulations, 1962

A lengthy set of rules are given which set forth required procedures related to the production of oil and gas. Some of the important points are outlined below.

A licence is required to drill or deepen a well, and drilling rigs and service rigs are required to have a licence in order to operate.

The area of a drainage unit for an oil well is one legal subdivision (40 acres) and for a gas well is one section (640 acres) unless otherwise ordered. To qualify for a production allowable based on a full drainage unit, the well must be completed within a prescribed target area in the drainage unit.

A well may not be drilled within 2 miles of an active subsurface mine. Certain protective measures are required in drilling for oil or gas below the Prairie Evaporate in restricted areas designated by the Minister.

Proper blow-out prevention equipment is required on both drilling and service rigs.

Adequate surface and production casing and other equipment are required for drilling and producing wells.

Samples of drill cuttings must be taken from each well at intervals of 10 feet and forwarded to the department. Samples of oil, gas and water recovered from a well and all cores must be sent to the department.

An electrical log or resistivity log, a radioactivity log or induced radioactivity-velocity log, and the results of drill-stem tests must be submitted.

Deviation surveys at intervals not exceeding 500 feet are required.

Information from wildcat drilling and test holes is confidential until one year has elapsed after the completion of each well. Information is released 30 days after an area has been designated as a field or pool providing one year has elapsed following completion of the discovery well.

A well must be plugged according to approved procedures upon abandonment, and the well site and roadway must be cleaned and levelled.

Drilling rigs and equipment may not be removed until the specified abandonment procedures have been completed.

Maximum permissive rates of production for oil and daily allowables for gas are set by the department by prescribed formula. Gas or water may not be produced from an oil well in excess of the gas-oil ratio or water-oil ratio determined by a prescribed formula without penalty unless the gas or water is returned to the reservoir.

The department may require the operator to conduct reservoir surveys when deemed advisable.

Newly completed gas wells must be tested by the back-pressure method in the presence of a Minister's representative before gas may be sold for public use at a prescribed rate of production.

The owner of a gas producing well may be required to maintain, continue, resume, restrict or discontinue production of gas from the well if the Minister deems it necessary to conserve such gas.

Salt water produced with crude oil must be disposed of by a method satisfactory to the Minister.

Subject to an inquiry the owner of a well may inject gas, water or other fluid into a reservoir for the purpose of stimulating oil or gas production.

Oil, gas and water produced from a well must be measured in a manner satisfactory to the Minister.

Mineral Taxation and Royalties

THE MINERAL RESOURCES ACT

The Mineral Disposition Regulations, 1961

A royalty is payable quarterly on the net income derived from mining operations at the rate of $12\frac{1}{2}$ per cent, or in the case of new mines, following a royalty-free period during the first three years of production, at the following rates:

First \$25,000	— nil
\$25,000 to \$100,000	— 5 per cent
\$100,000 to \$500,000	— 7 per cent
Over \$500,000	— 9 per cent

The net income from mining is calculated by deducting from the gross income expenditures made for the purpose of earning the income. Such expenditures may include an allowance for depreciation of not less than 5 per cent and not more than 15 per cent of the cost of the mining plant, an allowance of not less than 5 per cent and not more than 15 per cent of the cost of preproduction work and approved expenses for exploration in Saskatchewan.

The royalty is applicable only to profits derived from mining up to the point of egress of the ore from the mine. Income from investments or other business ventures are deducted from gross income before determining net income. A deduction from gross income is also made which is related to the profit derived from processing the mineral ores after they have left the mine.

The Subsurface Mineral Regulations, 1960

Potash royalty is charged on crude ore delivered to the surface of the ground and at a graduated per cent rate of value, depending upon the K_2O content of such ore. The rate charged, in per cent of the current price of commercial manure salt, increases from 4.25 per cent for ore grading 21 per cent K_2O , to 9 per cent for ore grading 45 per cent. Royalty is payable quarterly. The existing annual lease rentals and the royalties on potash continue in force for 10 years from January 1, 1964.

The royalty on sodium chloride (common salt) is 30¢ for each ton produced and used as a raw material base, or produced and sold, or 3 per cent of the selling price of such sodium chloride, whichever is the greater.

The Petroleum and Natural Gas Regulations, 1963

Royalties ranging from 5 to 16 per cent of production are payable on petroleum; on natural gas they are 8 per cent of the sale value or fair value, whichever is greater at the time and place of production, but in any event not less than half a cent per 1,000 cubic feet, except in the case of gas utilized by the operator in production.

The Oil Shale Regulations, 1964

The royalty payable from the production of oil-shale products is $12\frac{1}{2}$ per cent of the net profit. The net profit is derived on the same basis as that set forth under The Mineral Disposition Regulations, 1961, in so far as allowances for depreciation, preproduction and processing are concerned.

A producer of oil-shale products may be granted an exemption from royalty for the first three years of oil-shale production.

The Helium and Associated Gases Regulations, 1964

The royalty payable from the production of helium and associated gases is 12½ per cent of the net profits.

As in the case of The Mineral Disposition Regulations, 1961, the net profit is calculated with allowances for depreciation, preproduction and processing.

An exemption from royalty may be granted on the first three years of production to a producer who builds and operates a processing plant in conjunction with his production.

The Alkali Mining Regulations

An annual royalty is payable as calculated according to the formula hereunder set out on all products sold, whether anhydrous or hydrous, taken from each operation of the property leased:

$$R = \frac{3.9}{100} \times \text{value received from the products} \times F.$$

The factor F is variable according to the tonnage of products sold during the year as follows:

Up to and including the first 10,000 tons of products sold	0.7
On the next 5,000 tons of products sold	0.8
On the next 5,000 tons of products sold	0.9
On the next 5,000 tons of products sold	1.0
On the next 10,000 tons of products sold	1.1
On the next 10,000 tons of products sold	1.2
On the next 10,000 tons of products sold	1.3
On the next 10,000 tons of products sold	1.4
On excess above 65,000 tons of products sold	1.5

The Coal Mining Regulations

A royalty is payable quarterly at the rate of 5¢ per short ton on the merchantable output of the mine.

The Quarrying Regulations

A royalty is payable quarterly at the rate of:

- (a) 2 per cent of the selling value on material shipped from Saskatchewan in the raw state or partially processed for manufacture elsewhere.
- (b) 5¢ per cubic yard on material processed into finished products in the province.

Sand and gravel when used as flux in smelting and mine back-filling operations or by government and municipal bodies for public purposes may be disposed of under royalty-free licences and leases.

THE ROAD ALLOWANCES CROWN OIL ACT

This act is based on the premise that all road allowances are Crown owned and the minerals thereunder are also the property of the Crown.

It has been determined that the amount of Crown-owned minerals under road allowances averages about 1.88 per cent of all the minerals in the surveyed portion of the province. It is construed that 1.88 per cent of the production from an oil well is attributable to road allowances.

Every owner of an oil well is liable to pay to the Minister one per cent of the value, calculated on the average prevailing well-head price, of the oil produced, free and clear of any deductions. The 0.88 per cent is retained by the owner for his own use and benefit in lieu of lifting costs attributable to the Crown's share of production.

THE MINERAL TAXATION ACT, 1953

This act provides for the taxation of all freehold mineral rights in Saskatchewan by three methods:

- (1) a general levy of 3¢ an acre a year on all minerals except coal, with railways and some urban property exempt;
 - (2) the assessment in a prescribed area of a specific mineral based on value of orebody (not at present in use);
 - (3) an assessment where potash, petroleum or natural gas, or coal is being produced, the property being valued on the basis of the preceding year's production.
- There are no exemptions under (3). The third tax is in addition to the first tax.

The general tax on acreage has been applied since 1965 only to corporations and not to individuals.

The rate under (1) provides for a minimum annual tax of one dollar per title. The rate under (2) provides for a maximum of 10 mills with authority for the Lieutenant Governor in Council to set annual rates. Provision is made for an interim levy of 50¢ an acre a year pending publication of the assessment roll, and for a minimum annual tax of one dollar a title. The rate under (3) has a maximum of 10 mills with authority for the Lieutenant Governor in Council to set annual rates up to the maximum and property values.

The normal penalty exacted for non-payment of tax is loss of the mineral title. The Minister may collect taxes by distress under certain conditions, at his option.

Operating and Safety Rules

THE MINES REGULATION ACT, 1953

The Mines Regulation Act establishes the duties of mine operators and the authority of inspectors with respect to safety in mines. Broad authority over working conditions is given to inspectors but the mine operator may appeal to the Minister for reconsideration of an inspectoral order.

Regulations Governing the Operations of Mines, 1953

The present regulations, which comprise the working rules by which mining in the province must be conducted, were established in 1953. These regulations were closely patterned on the Ontario Mining Act of that time. They directly apply to conventional

hardrock mines and indirectly, that is, with a degree of interpretation of intent, to non-metallic and coal mines. Prior approval must be obtained from the department for such items as hoisting equipment, ropes, cages, shafts, electrical installations, pressure bulk-heads, explosives storage magazines, ventilation equipment and multiple blasting systems. Pre-employment and periodic medical examinations are required for men in dust-exposure occupations.

THE MINERAL RESOURCES ACT

Geophysical Exploration Regulations, 1964

Any person desiring to operate geophysical equipment within the sedimentary basin area of Saskatchewan must operate under a licence and each crew must operate under a crew certificate. All licences expire on March 31. The fees are \$25 for a licence and \$5 for a crew certificate.

The regulations are designed to protect original surveys, natural resources, roads and highways, water rights, utilities, public and private property, as well as life itself.

Cognizance is taken of the value of fresh water supplies by protecting wasteful flow and permitting controlled use of the supply.

Explosives may be handled only under the personal supervision of a person who is the holder of a permit and a Certificate of First Aid approved by the Workmen's Compensation Board.

THE OIL AND GAS CONSERVATION ACT, 1953

The Oil and Gas Conservation Regulations, 1962

The regulations outline detailed rules governing safe drilling equipment and practices, and safe production equipment and practices, and procedures to be carried out in case of accident, particularly if the accident proved fatal. A licence is required to operate a drilling rig.

THE COAL MINERS' SAFETY AND WELFARE ACT, 1953

This act is comparable to The Mines Regulations Act (for non-coal mines) as it sets out working rules for maintaining a safe and healthy environment for employees. It deals with such matters as the duties and responsibilities of managers and inspectors, maintenance and guarding of machinery, support of workings, keeping of plans and records, working hours, payment of wages, abandonment of workings, ventilation, explosives, sanitation, electricity and fire fighting.

Other Acts

THE PIPE LINES ACT, 1954

The act is administered by the Department of Mineral Resources and provides for authorization of construction and operation of pipe lines. The construction of a pipe line is prohibited without a permit.

The act provides authority for the appropriation of land for pipe-line rights-of-way, for expropriation proceedings where necessary. It prohibits the working of minerals on pipe-line right-of-way by the pipe-line company or by mineral rights owner, without permission of the Minister.

The pipe-line permittee is required to obtain an operating permit, after completion of construction, before starting operation of the pipe line.

Excluded from the jurisdiction of the act are all flow lines, service lines, gathering lines or other pipe lines or parts of pipe lines exempted by the Minister.

The Pipe Lines Regulations, 1954

Detailed requirements in submitting an application for a pipe-line construction permit or operating permit are set forth. For construction permits, the Department of Mineral Resources and the Department of Highways and Transportation each require a plan of construction bearing the approval of the council of every municipality in which the pipe line is proposed; the plan must indicate the location, size and capacity of the pipe line, the location of valves, pumping stations, compressors, storage tanks, and other facilities. Where a pipe line is expected to cross a provincial highway, additional crossing construction details must be filed with the Department of Highways and Transportation.

Departmental inspections are made during construction and operation of the pipe line to ensure that prescribed standards of construction and operations are met.

THE COAL MINING INDUSTRY ACT, 1953

This legislation was prepared for the purpose of regulating coal mines, commercial and otherwise, with respect to selling, distribution, processing and other matters incidental to the conduct of the industry.

Regulations under The Coal Mining Industry Act

The regulations under this act deal with production licences, trade names, weights and measures, guarantees as to the payment of wages and Workmen's Compensation coverage.

THE MINING, SMELTING AND REFINING DISTRICT ACT, 1953

The act provides for the creation of a district in northern Saskatchewan and for no liability for damage occasioned by operations within the district.

In areas outside the district the act provides for compensation for damage caused by mining, smelting, and refining operations. It authorizes the appointment of an arbitrator and sets forth his jurisdiction, the time limit for giving notice of damage, the investigation and assessment of the damage, effect of the award, and agreements of settlement.

The owner or operator of any mining, smelting, refining or other reducing works, or any person who contemplates acquiring or operating such works may make an agreement with the owner or lessee of any land situated outside of the district for payment of compensation. The agreement must be registered, and the payment of compensation must afford a complete answer to any such action for damages.

PROSPECTING INCENTIVE PROGRAM

The program provides for the payment by the government of the province of up to 50 per cent of the costs of approved prospecting work. Such work may include prospecting, trenching, geological and geophysical surveys, diamond drilling, and exploratory shaft sinking.

The maximum payment, whether to an individual or a company is \$50,000 a year with a \$150,000 maximum on each property. The government's share is repayable if such assistance results in the development of a mine.

Schedule of Fees

THE MINERAL RESOURCES ACT

The Mineral Disposition Regulations, 1961

Recording fees:

claim, each	\$ 5.00
claim block, per acre	0.15
lease	25.00
Filing of applications pending investigation	5.00
Metal tags, per set of four	1.00
Duplicate set of metal tags, per set of four	1.00
Order under section 15 of The Mineral Resources Act, 1959, relieving from forfeiture or loss of rights, per disposition	10.00
Extension of time for doing work:	
per claim	2.50
per claim block	25.00
Substitutional claim or claim-block certificate, lease or permit	5.00
Grouping claims, per group	10.00
Abstract of record of disposition, per disposition per page	1.00
Examination of the record, per disposition:	
in person	0.10
by mail	0.25
Recording transfer of a claim, per claim	2.00
Registration of assignment of entire claim block, permit or lease	10.00
Registration of assignment of part of claim block, permit or lease, including the issuance of a new claim-block certificate, permit or lease covering the assigned portion	15.00
Transaction requiring an Order in Council	25.00
Copy of any document, except claim or claim block certificate:	
for the first page	1.00
for each additional page	0.50
Certified copies of any document, except claim or claim-block certificate:	
for the first page	2.00
for each additional page	1.00
Application for permit	25.00

The Subsurface Mineral Regulations, 1960

Application for a permit or lease including a consolidated permit	25.00
Registration of entire assignment of a permit or lease	10.00
Registration of partial assignment of a permit or lease including the issuance of a new permit or lease covering the assigned portion	15.00
Application for extension of time or other concession:	
Where no Order in Council required: per permit or lease	10.00

Where Order in Council required: per permit or lease	\$ 20.00
Amending a permit or lease	20.00
Search fee for each permit or lease	1.00
Copy of permit or lease	10.00
Copies of any other documents:	
First page	1.00
Each additional page	0.50
Certified copies of any document:	
Double the above fees	
Late filing fee for recording transfer, option for each day over the 60 day filing period	0.50

The Petroleum and Natural Gas Regulations, 1963

Application for lease	10.00
Registration of assignment or disclaimer of interest, per permit, drilling reservation or lease	10.00
Registration or partial assignment of permit or lease, including issuing new permit or lease covering assigned portion and amending original permit or lease	25.00
Division of lease by issue of new lease and amending original lease	15.00
Amending permit or lease upon withdrawal of portion of land or surrender of rights covered thereby	5.00
Registration of sublease or other agreement where no change in registered ownership results, per permit, drilling reservation or lease	5.00
Filing of document pursuant to subsection (3) of section 75	10.00
Grouping leases or permits for each lease or permit so grouped	5.00
Preparing certified copy of lease	10.00
Preparing photocopy of any document, each page (unless otherwise authorized by the Minister)	1.00
Preparing plans, maps, etc., per hour	2.00
Minimum charge	1.00
Search as per Schedule "C"	1.00
With land description of permit or drilling reservation	2.00
5.00	
Historical abstract as per Schedule "D"	5.00
Special case requiring Order in Council	20.00
Special advertising for disposition of petroleum and natural gas rights	100.00
Registering each interest in Unit	5.00
Change of name—per document	2.00

The Oil Shale Regulations, 1964

Application for lease	10.00
Registration of assignment or disclaimer of interest, per permit or lease	10.00
Registration of partial assignment of permit or lease, including issuing new permit or lease covering assigned portion and amending original permit or lease	25.00
Division of lease by issue of new lease and amending original lease	15.00
Amending permit or lease upon withdrawal of portion of land or surrender of rights covered thereby	5.00
Registration of sublease or other agreement where no change in registered ownership results, permit or lease	5.00

Filing of document pursuant to subsection (3) of section 42	\$ 10.00
Preparing certified copy of lease	10.00
Preparing photocopy of any document, each page (unless otherwise authorized by the Minister)	1.00
Preparing plans, maps, etc., per hour	2.00
Minimum charge	1.00
Search as per Schedule "C"	1.00
With land description of permit	2.00
Historical abstract as per Schedule "D"	5.00
Special case requiring Order in Council	20.00
Change of name—per document	2.00

The Alkali Mining Regulations

Application for lease	10.00
Registration of assignment	5.00
Application for grouping certificate	5.00
Search fee for each lease	5.00
Permit to harvest Little Manitou or surrounding area:	
Where applicant is local resident	1.00
Any other person	5.00

The Coal Mining Regulations, 1957

Application for a Coal Prospecting Permit	5.00
Lease Application Fee (per lease)	5.00
Application fee for Road Allowance Lease	5.00
Licence to remove coal	1.00
Registration of Assignment of a Permit or Lease, per disposition	5.00
Plans—per hour (minimum charge 50¢)	2.00
Copies of any documents per page	1.00
Certified copies of any document per page	2.00
Application for extension of time or other concession:	
Where no Order in Council required, per disposition	5.00
Where Order in Council required, per disposition	20.00

The Quarrying Regulations, 1957

Application for Permit	25.00
Application for Lease	5.00
Licence Fee	1.00
Registration Fee	5.00
Search fee for each disposition:	
by mail	1.00
in person	0.50
Application for extension of time or other concession:	
Where no Order in Council required, per disposition	10.00
Where Order in Council required, per disposition	20.00
Copy of permit or lease	10.00

Copies of any other documents:	
First page	\$ 5.00
Each additional page	0.50
Certified copies of any document:	
Double the above fee	
Change of name of recorded holder of disposition (other than an assignment) per disposition	5.00

Geophysical Exploration Regulations, 1964

Licence to operate geophysical equipment within the sedimentary basin area of the province	25.00
Crew certificate	5.00
Transfer of a licence	15.00

THE OIL AND GAS CONSERVATION ACT, 1953

The Oil and Gas Conservation Regulations, 1962

Application for licence to drill a well for oil or gas	50.00
Application for licence to re-enter or abandoned wells	25.00
Application for licence to drill a structure test hole	10.00
Application for a change of well name	25.00
Application for licence to operate a drilling rig	25.00
Application for a licence re-casing pullers and service rigs	25.00
Application for well licence assignment	5.00
Inspection of well files	0.25

Principal Officials

DEPARTMENT OF MINERAL RESOURCES

- Minister
- Deputy Minister
- Director of Petroleum and Natural Gas Branch
- Director of Mineral Lands Branch
- Director of Geological Sciences
- Administrator of Mineral Taxation
- Chief Inspector of Mines

Inquiries for detailed information on and requests for copies of the various acts and regulations referred to above may be directed to the Deputy Minister, Department of Mineral Resources, Regina, Saskatchewan.

MANITOBA

The province was formed from the Northwest Territories and became a part of Canada by the Manitoba Act of 1870. Mineral resources of the province were placed under the jurisdiction of the Government of Canada.

In 1930 the Manitoba Natural Resources Act transferred full control over mineral resources to the province.

The first provincial mines act was passed in 1897 and consolidated in 1913. In 1930, The Mines Act was passed, which with subsequent amendments, remains in force.

Freehold title to mineral rights was granted on substantial areas prior to the transfer of the resources to the province. Since that time mineral rights on Crown lands have been granted by a leasing system. Crown-owned mineral rights constitute approximately 20 per cent of the land of the potential oil and gas producing areas in the southwestern part of the province.

Most of the titles to freehold mineral rights are registered under the Land Titles Act. Dispositions of Crown-owned mineral rights are recorded by the Department of Mines and Natural Resources.

Rights to surface lands are not included with mineral rights disposed by the Crown.

DEPARTMENT OF MINES AND NATURAL RESOURCES ACT

The department was created by the Mines and Natural Resources Act of 1928. The act provided for the appointment of a Director of Mines.

The Mines Branch was established as a branch of the department by The Mines Act, 1930 through which the Minister would administer mines and minerals in the province.

The Mines Act and Regulations empower the Mines Branch to dispose of Crown-owned mineral rights, control mine operations and levy royalties and fees. The Branch issues drilling licences and administers oil and gas regulations governing drilling and production.

Under Part I of The Mines Act a Mining Board consisting of three members has been appointed. The Board is authorized to settle disputes over ownership of mineral rights, surface rights on mineral property, and other questions arising from The Mines Act. Decisions of the Board may be appealed to the courts.

Under Part II of The Mines Act, an Oil and Gas Conservation Board, consisting of three members, has been appointed. The Board is charged with effecting the conservation of the oil and gas resources of the province, prevention of waste in the production of oil and gas, the regulation of all operations for the production of oil or gas in such manner that the greatest economically practicable recovery by prudent and proper operations and practices may be realized, and giving to each owner the opportunity of obtaining his just and equitable share of the production of any pool.

The Oil and Gas Conservation Board is empowered to issue orders governing maximum permissible rates of production of oil and gas, field boundaries, salt water disposal, pooling and secondary recovery practices subject to the approval of the Minister. The Board also issues orders governing unitization subject to the approval of the Lieutenant Governor in Council. Decisions of the Board may be appealed to the courts.

The acts and regulations administered by the Mines Branch are as follows:

	<i>Page</i>
The Mines Act, R.S.M. 1954, Ch. 166	93, 102, 104, 105, 106
Regulations Governing the Operation of Mines	105
Regulations for the Disposal of Mining Claims and Placer Claims	94, 106
Regulations for the Disposal of Quarrying Claims, Boring Claims, Oil Shale Reservations and Amber Claims	97, 107
Regulations for the Disposal of Oil and Natural Gas Rights on Crown Lands and the Exploration, Development and Pro- duction of Oil and Natural Gas	99, 103, 104, 105, 108
Exploring for Potash	102
Regulations Respecting Royalty on Potash Ore	105
The Industrial Minerals Drilling Act, R.S.M. 1954, Ch. 290	105
The Pipe Line Act, R.S.M. 1954, Ch. 26	105
The Mineral Taxation Act, R.S.M. 1954, Ch. 19	105
The Mining Royalty and Tax Act, 1954, Ch. 169	105

The Gas Pipe Line Act is administered by the Department of Public Utilities.

Disposition of Mineral Rights

THE MINES ACT

The act applies to all non-living substances on or under the surface but does not apply to agricultural soil, subsurface water or ground water not obtained from a well.

All permits and leases are subject to a provision that ores or minerals mined in the province are to be treated and refined within Canada. Exemption from this provision may be granted.

The surface rights necessary to the conduct of mining operations may be acquired by an operator.

Where the required lands are held solely by the Crown and are within the boundaries of a forest reserve or are lands set aside for any public purpose, the operator must obtain written authority of the Director of the Mines Branch to use the lands.

Where the required lands are held under lease or other terminable grant from the Crown, the operator may apply to the Mining Board for acquisition of the lands.

Where the required lands are freehold, the operator may only use the lands with the consent of the owner of the surface rights or under an order of the Mining Board.

The Mining Board is required to hold a hearing on each application for the acquisition of surface rights in accordance with its rules of procedure. The Board may issue an order granting the right of entry to the surface after having determined the extent and location of the surface rights necessary to the mining operation, the amount of compensation payable by the operator, and any other condition deemed necessary in connection with granting of the right of entry.

Regulations for the Disposal of Mining Claims and Placer Claims

Any person 18 years or over, any syndicate and any firm, company or corporation registered with the Department of the Provincial Secretary is entitled to obtain a licence. Licences expire March 31, following the date of issue, and are renewable at any time prior to March 31st.

A licensee has the right to prospect on vacant Crown lands and to stake out eighteen claims in each mining division each year.

Except where the Minister is satisfied that a discovery of valuable mineral in place has been made, staking is not permitted upon any land reserved by the Crown as a townsite, settlement or parish; laid out into town or village lots by the owner; used by any railway or road; reserved for summer resort purposes, for provincial game preserves and bird sanctuaries.

Prospecting and staking out may not be done on land withdrawn from staking by competent authority; or land which is an Indian Reserve, a National Park, or a military, naval, quarantine or other like reservation made by the Government of Canada.

Staking is not permitted within built up areas in provincial parks. However, application may be made for mineral rights in such areas.

A miner's licence entitles the holder to cut timber only in accordance with The Forest Act and Regulations. A licensee may prospect in a forest reserve; assessment work programs must be approved by the Forest Service prior to commencement.

Mining Claims

In unsurveyed territory a claim must be laid out with boundary lines running as nearly as possible north and south and east and west astronomically in the form of a square. The boundary lines must be approximately 1,500 feet in length. Fractional claims need not be quadrilateral and the lines of previously located claims may be adopted as the boundaries of the fractional claim.

In surveyed territory every claim must consist of a quarter of a quarter section styled a legal subdivision (40 acres). No claim may be partly located in one legal subdivision and partly in another.

Claims located within 10 miles of a recording office must be recorded within 15 days. If over 10 miles, one extra day is allowed for each additional 10 miles, up to a maximum of 60 days.

Metal tags issued by the recorder must be affixed to the corner posts of the claim within one year of recording. Tags purchased from the recorder prior to staking for one

dollar per set must be affixed to the corner posts at the time of staking. The price of the tags is deducted from the recording fees at the time of recording.

Grouping

Contiguous claims, held under entry or lease not exceeding 36 in number may be grouped for purposes of assessment work.

Assessment Work

Any licensee having duly located and recorded a claim is entitled to hold it for a period of one year, and thence from year to year without rerecording provided any of the following work is performed each year: removal of 144 cubic feet of rock in trenching, shaft sinking, and sinking test pits; removal of 288 cubic feet of overburden in stripping, shaft sinking and sinking test pits; boring 35 lineal feet by diamond drill; survey of the claim by a Manitoba Land Surveyor; or an approved geological or geophysical survey.

On completion of 5 years of assessment work, including a survey by a Manitoba Land Surveyor, the holder is entitled to a lease.

Surveys

A holder of a claim in unsurveyed territory must, before a lease is issued have a survey made at his expense by a Manitoba Land Surveyor in accordance with provisions of The Surveys Act. If considered necessary by the Director of Surveys a survey may also be ordered for claims in surveyed territory.

A perimeter survey only is required by the holder of a group of 18 contiguous claims which is approximately rectangular or square in shape.

Prospector's Reservations

A licensee who is the first to stake a claim upon which he has made discovery of mineral within such parts of the province as defined from time to time by the Lieutenant-Governor-in-Council may apply for a prospector's reservation of an area 2 miles square, with boundaries north-south and east-west, of which the centre is the No. 1 post of the claim.

No person other than the licensee or his authorized agent may stake within the reservation for a period of 6 months from the date of staking the discovery claim. A prospector's reservation shall not be granted within a radius of fifteen miles of a recorded claim or other reservation that is in good standing.

Areas open for prospector's reservations are all the portion of the province lying north of 51 degrees 15 minutes north latitude and east of 99 degrees 30 minutes west longitude and in the portion north of 55 degrees north latitude and west of 99 degrees 30 minutes longitude.

Geophysical Reservations

Subject to the approval of the Director of the Mines Branch, tracts of land within those parts of the province as defined in section 78 of the regulations, may be reserved to applicants for purpose of carrying on geophysical examination.

Application for a reservation may be made to the chief mining recorder only within the period October 31-April 30, and must be accompanied by a fee of \$250 plus a cash deposit of 25¢ an acre. The reservation may not exceed 200,000 acres or be less than 10,000 acres. The area must be rectangular in outline with the length not more than twice the breadth.

The term of a reservation is 18 months. The Director may renew the reservation for a further period of 12 months upon the posting of a cash deposit of 50¢ per acre, as a guarantee that a further expenditure of 50¢ per acre will be made prior to the termination of the extension. For the renewal period the holder may reduce the area to not less than 50 per cent of the area of the original reservation.

Prior to the termination of the reservation, the holder may stake and record mining claims covering not more than 50 per cent of the reservation.

Airborne Geophysical Investigations

A permit to conduct airborne geophysical surveys, for a 12-month period, may be obtained by application to the Director. The application must be accompanied by a fee of \$50 and a deposit of \$20,000.

Within three years of the expiration date of the permit, the permittee must submit to the Director a complete report together with maps on the areas surveyed, but which have not been acquired for further development.

The cash deposit will be refunded after the required report and maps have been filed with the Director.

Leases

A lease may cover a single claim, or a group of claims where a perimeter survey has been made. The term of the lease is 21 years, renewable for successive like period. If production from the lease is assured, the lessee may apply for two successive renewal periods of 21 years in addition to the initial term of the lease.

The rental for the term of the lease is one dollar per acre provided the claim does not exceed 52 acres, but the rental may not be less than \$5. Each acre or fraction in excess of 52 acres is subject to a rental of \$5. These rentals apply also to renewals in respect to areas from which minerals are being produced.

Where ore or minerals are not being produced from a leased area and where a reasonable effort has been made to explore for, develop and mine minerals the Minister may renew the lease for one period of 21 years at a rental of \$4 per acre for the term of lease, but the rental may not be less than \$20. Rental on excess acreage is \$20 per acre.

A lease under these regulations may not be assigned, transferred or sublet without the consent in writing of the Deputy Minister. A lease conveys to the holder only the right to enter, use and occupy the surface of the lease or such portions as are deemed necessary by the Minister for mining operations. The holder of a lease is not entitled to timber upon land included in the lease except under permit issued by the Forest Service.

Surface Rights

Where the surface rights of a claim remain in the Crown unencumbered and unreserved the holder of a mineral lease is entitled to obtain a lease for surface rights

subject to conditions prescribed by the Minister. The term of a surface lease may not exceed the term of the mineral lease.

The holder of a claim may obtain a surface permit renewable from year to year during the continuance of his record.

Placer Claims

The provisions of these regulations as to staking out and recording a claim apply also to placer claims, except that assessment work is not required. Within two years of recording the holder of a placer claim shall have the same surveyed by a Manitoba Land Surveyor and shall apply for a lease.

*Regulations for the Disposal of Quarrying Claims,
Boring Claims, Oil Shale Reservations and Amber Claims*

Quarrying Claims

This part of the regulations apply to granite, gypsum, limestone, marble, sandstone, slate or any building stone, clay, gravel, peat or sand.

A licensee may obtain from the Director a permit for one year or a lease granting exclusive right to prospect, quarry, mine or remove the material covered by the permit, subject to prescribed terms and conditions. A permit or lease conveys the rights only to those minerals which are specified.

The rates of annual rental for a permit or lease are:

First and second year	—	\$1	per	acre
Third and fourth year	—	\$2	"	"
Fifth and sixth year	—	\$3	"	"
Seventh and eighth year	—	\$4	"	"
Ninth and thereafter	—	\$5	"	"

The term of a lease is 10 years, and is renewable for an additional 10 years.

Prior to the granting of a permit or lease for a claim, the applicant must show that adequate compensation for damage to surface rights has been paid or secured by the owner of these rights.

The maximum area of a claim is 40 acres and the minimum not less than 10 acres unless only a smaller acreage is available. A person may not stake out or acquire more than 360 acres, or 9 legal subdivisions, except by assignment in any one licence year.

The maximum area of a claim which may be acquired for the removal of peat is 1,920 acres. The annual rental is 50¢ per acre.

Where surface rights of a claim are covered by a timber licence, grazing lease, boring claim, mining claim or other form of terminable grant which does not contemplate the issue of patent or transfer, the permit or lease authorizes entry only with the permission of the Minister.

A lessee may apply to the Minister for a lease of surface rights concurrent with the quarrying lease for such portion of the lease as may be necessary for efficient and economical working of the quarry.

Sand, gravel or stone in a quantity less than 2,000 cubic yards may be removed on application to the Director at a price, and on such terms as he may specify.

Boring Claim

A permit granting exclusive rights to prospect upon a boring claim for one year may be obtained from the Director. The permit entitles the holder to search for and remove coal, oil shale, and salt only. The annual rental is 10¢ per acre.

An applicant for a permit must satisfy the Director that he has paid or secured to the owner of the surface rights, if any, appropriate compensation for any injury or damage as a result of his operations.

Operations must commence within 90 days of granting of permit, but work is not required to be performed between the months of November to April inclusive.

The minimum area of a claim is 160 acres, and except by assignment, a person may not acquire an area greater than 1,920 acres, nor more than six separate claims in any one licence.

The permittee has the right to apply for a lease of the whole or a portion of the area under permit at any time during the term of the permit. The term of a lease is ten years, and is renewable. Rental is one dollar per acre annually.

The lease does not entitle the lessee to the use of surface rights, except as may be necessary for removal of or exploration for material covered by the rights granted.

Oil Shale Reservations

Subject to the approval of the Minister, the Director may grant a reservation for boring claims for oil shale. The area of reservation may not exceed 200,000 acres or be less than 10,000 acres.

An application for a reservation to carry out geological investigations is made to the chief mining recorder, and must be accompanied by an application fee of \$250 and a cash deposit of \$750 for each 20,000 acres.

Within 30 days of the granting of a reservation, the holder must submit to the Director evidence of the engagement of qualified personnel, and information as to date of commencement of operations. If the grant is made between September 30 and April 1 the evidence and information must be submitted before the first day of May following.

The term of reservation is 12 months from the date of issue. Renewals may be granted where a satisfactory program of investigation has been commenced.

The holder of a reservation may terminate it at any time, and has the right to apply for lease for not more than 10 per cent of the tract in the reservation. Where he holds more than one reservation for the purposes of a single program of prospecting, all of which were granted at the same time, he may lease not more than 10 per cent of the area comprising all the reservations without regard to the boundaries of the reservation.

The holder of a reservation may not assign, transfer, sub-lease or make other disposition of the reservation, without the consent in writing of the Minister.

Amber Claims

The Director may issue a permit good for one year, granting a licensee the exclusive right to prospect and explore for amber in Crown lands. A lease of the location may be granted by the Minister after exploration work has been performed for two years. The annual lease rental is 25¢ per acre. The term of a lease is 10 years, renewable for a further like term.

Regulations for the Disposal of Oil and Natural Gas Rights on Crown Lands and the Exploration, Development and Production of Oil and Natural Gas

Geophysical and Geological Exploration

A geophysical or geological licence is required by persons proposing to conduct such investigations in the province. Licences expire on March 31 following the date of issue, but are renewable. The fee for a licence or renewal is \$25.

Applications for a licence must be accompanied by a statement of the location, type and extent of the proposed exploration program. Monthly progress reports are required and a final report is required within 6 months of the completion of the program.

Geological and Geophysical Reservations

Tracts of land may be reserved for geological or geophysical examination. An application must be accompanied by a fee of \$250 and a cash deposit for each 20,000 acres applied for in the amount of:

\$750 where work is restricted to surface geological investigation, or

\$2,000 where the work proposed also includes geophysical operations or investigations relating to subsurface geology.

The area of a reservation may not exceed 200,000 acres or be less than 10,000 acres, and the length of the tract may not be more than twice the breadth.

Within 30 days of the granting of a reservation, the holder must submit to the Director evidence of the engagement of qualified personnel, and information as to date of commencement of operations. If the grant is made between October 1 and March 31, the evidence and information must be submitted before the first day of April following.

The term of reservation is 12 months from date of issue. Renewals for 90 days up to a maximum of 12 months may be allowed under certain conditions. A reservation may be granted for a term not exceeding 3 years on the undertaking that the holder will make further expenditures and carry out specified work. Further extensions may be granted after the holder of a reservation has commenced a drilling program.

The holder of a reservation may terminate it at any time, and has the right to apply for lease on up to 50 per cent of the area of the reservation.

The holder of a reservation desiring to conduct drilling operations may select a drilling site or sites each of a quarter-section (160 acres) and apply for a lease. If the drilling indicates the presence of oil or natural gas in commercial quantities the area is immediately withdrawn from the reservation.

The holder of a reservation may not assign, transfer, sublet or otherwise part with the reservation without the consent in writing of the Minister.

Part VII of the regulations provides for reservation of tracts for exploring for oil and gas in the southwestern part of the province which is bounded by the Manitoba escarpment. The area of a reservation is limited to not more than 23,040 acres, and one person may hold not more than five reservations at one time. An application for a reservation must be accompanied by a fee of \$250 and a cash deposit of \$2,000. The term of the reservation is one year. One renewal of one year may be granted if a well has been drilled or if an additional cash deposit of \$2,000 is posted.

The holder of a reservation under Part VII is entitled to a lease on a proportion of the area of the reservation ranging from 50 to 75 per cent. The proportion depends on the depth of the well drilled on the reservation.

Drilling Reservations

An application for a drilling reservation must be accompanied by a fee of \$250 and a cash deposit of one dollar per acre.

The area of the reservation may not exceed 10,000 acres, and the length may not be greater than twice its breadth. The term of a drilling reservation is 60 days. Renewals of 60 day periods may be granted not exceeding 12 months provided satisfactory progress reports are filed with the Branch.

Within 60 days of the date that the reservation becomes effective the holder must have on the lands such machinery and equipment for drilling as the Director may consider necessary. On completion of the installation of the machinery, drilling must be commenced immediately and continued to the satisfaction of the Director.

Where any well has found oil or natural gas in commercial quantity the reservation automatically terminates. The holder has the exclusive right to apply for a lease or leases on the whole or any part of the tract within 30 days.

The holder may terminate the reservation at any time, provided he has made the prescribed expenditures. Prior to termination he has the exclusive right to apply for a lease or leases on all or any part of the area covered by the reservation. He may not assign, transfer, sublet or otherwise part with the reservation without consent in writing of the Minister.

The regulations provide that lands in respect to which oil and natural gas reservations, or leases, have terminated or have been cancelled are not again available for disposition until such time and on such terms as the Minister may direct. The practice has been to offer such rights to the highest bidder.

Leases

Leases of oil and gas rights are issued for a primary term of 3 years and a secondary term of 6 years. If the productive life of a lease is longer than the term of the lease it may be renewed for successive periods of not more than 6 years.

Rental for primary term is 50¢ per acre per annum. If production is not obtained during the primary term, rent during the second term is \$1.50 per acre annually. If commercial production is attained within either term the rental is 50¢ per acre annually. Where production is not attained during the primary or secondary term the Minister may grant 6-year renewals at a rental of one dollar an acre annually.

The leased area may not be more than 1,920 or less than 160 acres where available, unless the area has been derived from a reservation. Subject to provisions dealing with reservations for geological and geophysical examination no one, except by assignment, may acquire locations aggregating more than 9,600 acres in any one calendar year.

Tracts situated in surveyed territory must consist of sections and legal subdivisions, adjoining if possible. In unsurveyed territory tracts must be rectangular in form, unless the boundary of a previously located tract is adopted as a common boundary. The length must not exceed three times the breadth.

Application for a lease in unsurveyed territory must be made within 15 days of staking. One extra day is allowed for each 10 miles that the tract is in excess of 10 miles from the office of the chief mining recorder.

Within one year from date of lease or such other time as ordered by the Director the lessee must install such machinery and equipment for drilling as the Director may prescribe. Drilling must commence immediately upon the installation of the equipment,

and such operations must be continued to the satisfaction of the Director. Drilling of a second well must commence within 6 months of the competition or abandonment of the first well and further drilling be done in conformity with the regulations.

Where oil in paying quantities is discovered on lands adjacent to a leasehold the Director may order the lessee to drill an offset well.

For purposes of operation, a lessee, holding two or more oil and natural gas leases may group such portions of the leases that are situated within a radius of 25 miles from the well site. The maximum area allowable in a group is 19,200 acres.

The lessee may not enter upon the lands until arrangements have been made by agreement with the holder of the surface rights, or is entitled to enter under an order of the Mining Board.

The lessee may not assign, transfer or sublet any rights in his lease without written consent of the Minister.

A company or corporation acquiring a lease under these regulations must be incorporated or licensed and registered under the laws of Manitoba.

Where directed by the Lieutenant-Governor-in-Council, the Minister may at any time assume possession and control of any location acquired under these regulations, and operate the location on behalf of the Crown. The lessee will receive due compensation if such action is taken.

Far North

Part VI of the regulations sets forth rules pertaining to that part of the province lying north of latitude 56 degrees north and east of longitude 95 degrees west. The disposition of oil and gas rights is based on grid areas. Each grid area has a length east to west of 15 minutes of longitude and a width south to north of 10 minutes of latitude. Each grid area is divided into 100 sections. Each section is divided into 16 units. A target area is 600 feet square and is located in the centre of a unit.

A survey of an area may be required, and the survey may be made only by a Manitoba Land Surveyor.

Exploratory Permits

Permits may be issued to any person who has reached the age of 21 years or to a company incorporated or licenced to do business in Manitoba. A permittee must also hold a geophysical or geological licence on the permit area.

A permit covers a grid area or one-half a grid area. The number of permits one person may hold is not limited.

The term of a permit is 4 years. A permit may be renewed six times for a period of one year. Subsequent renewals are at the discretion of the Minister.

Exploratory permits may be disposed through application or tender. Lands granted by application are restricted to those that have not been previously held under permit or lease.

An application for a permit must be accompanied by a fee of \$250. The permittee must make a deposit with respect to the original term or renewal of a permit in an amount that varies from 5¢ to 50¢ per acre. A portion of the deposit equal to allowable exploratory expenditures on the permit area is returned to the holder of the permit.

Exploratory work off the permit area may be allowed if it is shown that the information obtained is of value with respect to the permit area. The cost of an exploratory

deep test well is allowable at twice the amount actually expended. Road building, geophysical examination or a contribution to a well drilled outside the permit area may be allowed if prior approval is obtained. In determining allowable expenditures, permit areas not exceeding 2 million acres in area may be grouped if they are contiguous or lie within a circle having a radius of 100 miles.

A report is required before exploratory work is begun giving detail of the program. Progress reports are also required at stated intervals and at the end of the permit period providing full information on geological and geophysical findings and copies of aerial photographs.

Oil and Gas Leases

Leases may be disposed by application or by tender. The lessee is authorized to produce oil and gas and to carry out exploratory work. The area which may be granted in an oil and gas lease by application is limited to one-half the permit area held by the applicant. The remainder of the permit area reverts to the Crown.

Exploring for Potash

Exploration permits for potash may be granted subject to such terms and conditions as may be approved by the Lieutenant-Governor-in-Council.

Oil and Gas Conservation

THE MINES ACT

Part II of The Mines Act sets forth a set of rules for the purpose of conserving oil and gas, preventing waste in their production, realizing the greatest economically practical recovery of oil and gas and giving each owner the opportunity of obtaining his just and equitable share of the production of any pool.

The Oil and Gas Conservation Board established under the act has the power to make orders designating areas as fields or pools; designating the area allocated to a well; requiring extraction of natural gasoline from gas produced; requiring pressure maintenance by the injection of gas, air or water into any pool; requiring underground storage of gas produced in excess of the reasonable market demand; requiring the underground disposal of water produced; and restricting, prorating or prohibiting the production of oil and gas for the purpose of giving each producer the opportunity of receiving his just and equitable share of oil or gas in a pool.

The Lieutenant-Governor-in-Council is empowered to make regulations for the purpose of carrying out the provisions of Part II of the act. He may declare any person who purchases, produces or acquires oil and gas produced from any pool to be a common purchaser of oil or gas from that pool.

The Oil and Gas Conservation Board may take possession of any well for the purpose of preventing damage to an oil or gas formation, or to remove an undue hazard to life, property or natural resources.

Pooling

Part III of The Mines Act sets forth a set of rules governing pooling and unitization. The owner of tracts or interests within a spacing unit may agree to pool their

interests for the purpose of development and operation of the spacing unit. Where the owners of tracts or interests within a spacing unit cannot agree to pool their interests, a working interest owner may apply to the board to so order. After hearing the application the board may order the pooling of interests within a spacing unit.

The Board is required to provide in any such order for the drilling and operation of a well on the spacing unit; for the appointment of an operator of the spacing unit; for the allocation to each owner of a tract in the spacing unit a just and equitable share of the oil and gas produced; for the apportionment of the cost of drilling the well on the spacing unit; and for the sale by the operator of the share of oil or gas allocated to the working interest owner of a tract who does not take or dispose of such oil or gas.

Where an order for compulsory pooling is made by the Board and where no production of oil and gas is obtained, the applicant for the order is required to pay all the costs incurred in the drilling and abandonment of the well. In the event production is obtained the owners who initially refused to agree to the pooling arrangements may be assessed by the Board up to one and one-half times the capital and operating costs of the well which would have been allocated to them under a voluntary agreement.

Unitization

The Board is required to encourage efforts initiated by working interest owners in a pool or field to consolidate, merge, or otherwise combine their interests for the purpose of accomplishing the more efficient and more economical development and production of the oil and gas resources of that pool or field.

A unitization agreement must be approved by the Board before it is put into effect.

After a hearing, which may be initiated by the Board or by application of a working interest owner, the Board may order that a pool or field be operated as a unit.

The Board is required to provide in any such order for the composition of the unit area; for the method of allocating to the owners of each tract a just and equitable share of the oil and gas produced; for credit to be given for wells or equipment contributed to the unit operation by working interest owners; for allocating to each working interest owner a share of the cost of the capital investment; for allocating the cost of the unit operation; for establishment of a committee of operators; for appointment by the committee of a unit operator; for recovering the cost of capital equipment or costs of operation from an owner who fails to pay his share; for termination of the unit operation; and for efficient operation of the unit area to secure the greatest economic recovery of oil and gas.

Regulations for the Disposal of Oil and Natural Gas Rights on Crown Lands and the Exploration, Development and Production of Oil and Natural Gas

Part IV of the regulations sets forth rules governing drilling and production operations.

A drilling licence is required before any well in the province may be started. An operator must appoint a person resident in the province as his representative and agent. The normal well spacing is forty acres. A smaller or larger spacing may be approved. Wells must be completed within a specified target area.

An operator must make directional surveys of a well at intervals of 500 feet or as required. An electric log of a well must be taken when ordered.

All gas produced must be measured with an approved gas meter. An estimate of the gas produced may be accepted if the Director exempts the well from metering.

Coring is required when a well encounters a potential producing formation or when the Director so orders. Samples of cuttings of the various formations penetrated must be taken at intervals of 10 feet. Samples of oil and gas must be submitted when discovered. Tests for the gasoline content of any natural gas may be ordered. The operator is required to assist officials in taking closed in pressure, bottom-hole pressure and working pressure of a well when such tests are carried out. A representative of the Branch must be present during a water shut-off test of a well.

Drilling equipment, casing and tubing must be approved by the Director before being used. All wells must be cased in the manner prescribed by the Director. Casing and control equipment must be maintained in good condition.

Any significant oil, natural gas or water producing stratum must be sealed off before drilling proceeds. Such stratum must also be protected from infiltrating waters.

A well may not be allowed to flow uncontrolled. Where an operator fails to prevent the escape of oil or gas or to control a flow of water the Director may take such steps as he deems necessary to control the well at the expense of the operator.

An operator must prevent any waste of oil and natural gas in the course of drilling and production operations and in storing, piping and distributing any oil and natural gas. An operator may not wastefully utilize any oil and natural gas or allow any oil or gas to leak or escape from natural reservoirs, wells, tanks, containers, or pipes.

Oil or gas may not be produced from more than one pool or zone at the same time from one well without the written consent of the Director. Natural gas may not be produced where the energy necessary for the production of oil is dissipated. Gas may not be produced in excess of market demand. An operator must obtain the written approval of the Director before abandoning a well or removing a drilling rig. Upon abandoning a well the operator is required to clean the well site and level it at a height two feet above the surrounding land.

Mineral Taxation and Royalties

THE MINES ACT

Regulations for the Disposal of Oil and Natural Gas Rights on Crown Lands and the Exploration, Development and Production of Oil and Natural Gas

Part II of the regulations provides for the levy of a royalty on oil and natural gas produced from Crown lands.

On petroleum products other than natural gas the royalty is $12\frac{1}{2}$ per cent of the selling price. On natural gas the royalty is $12\frac{1}{2}$ per cent of the selling price or fair value, with a minimum of one quarter of one cent per thousand cubic feet.

Regulations for the Disposal of Quarrying Claims

The following royalties are levied on quarriable substances produced from Crown lands:

Sand and Gravel:

(a) In that part of the province lying north of latitude 53° — 10ϕ per cubic yard

(b) In that part of the province lying south of latitude 53° — 15ϕ per cubic yard

Limestone— 2.8ϕ per ton

Peat— 25ϕ per ton

Regulations Respecting Royalty on Potash Ore

The royalty payable on potash ore production from Crown lands is calculated as a percentage of the net selling price of the mine-run potash ore. The rate of royalty varies with average grade of potash ore mined each month. The rate of royalty for potash ore with mine-run ore having 21 per cent or less contained is 4.25 per cent. The rate increases to 9 per cent for mine-run ore having 45 per cent or more contained potash.

THE MINING ROYALTY AND TAX ACT

A royalty tax is levied on the net profit derived from mine production. There is no levy under the act on petroleum and natural gas nor potash.

The operator of a mine is required to pay a royalty at the rate of 6 per cent on net income up to \$1,000,000. The rate is 9 per cent on net income from \$1,000,000 to \$5,000,000 and 11 per cent on taxable income over \$5,000,000.

The rate of royalty for a new mine during the first three years of production is reduced by 50 per cent.

In the case of industrial minerals produced from Crown lands, where the determination of a fair value for tax purposes may be difficult, the operator may apply to have the tax based on units of volume or weight.

In addition to the above royalty tax, the lessee or owner of each mining claim is required to pay a mining claim tax of \$10 annually.

THE MINERAL TAXATION ACT

The act provides for a tax on the assessed value of minerals in place on freehold mineral rights. The rate of tax is 8 mills on each dollar of assessed value. Assessments have been limited to oil production to date.

Mine Operation and Safety Rules

THE MINES ACT

Regulations Governing the Operation of Mines

The regulations provide for safe working practices in mines, quarries and metallurgical works.

Regulations for the Disposal of Oil and Natural Gas Rights on Crown Lands and the Exploration, Development and Production of Oil and Natural Gas

A drilling licence is required before undertaking the drilling for oil and gas.

Rules requiring safe procedures in drilling, in handling explosives, in controlling wells and in precautions against fire are set forth.

THE INDUSTRIAL MINERALS DRILLING ACT

A boring permit is required before drilling to explore or produce a deposit of coal, gypsum, oil shale, salt, water and any other nonmetallic mineral substance.

Other Acts

THE PIPE LINE ACT

The act controls the transmission of oil, and of water incidental to the production of oil. It is administered by the Department of Mines and Natural Resources.

A construction permit and operating licence must be obtained from the Minister. The Oil and Gas Conservation Board may be required to hold a hearing with respect to a proposed pipe line.

Provision is made for the expropriation of land necessary for a right-of-way.

THE GAS PIPE LINE ACT

The act controls the transportation and distribution of gas. It is administered by the Department of Public Utilities.

Schedule of Fees

THE MINES ACT

Regulations for the Disposal of Mining

Claims and Placer Claims

Miner's license or renewal thereof for an individual	\$ 5.00
Miner's license or renewal thereof issued to a registered mining syndicate	25.00
Miner's license or renewal thereof for a firm, company or corporation	75.00
Substitutional miner's license	1.00
Special renewal license under section 68 to save forfeiture, twice the fee prescribed above	
Recording each claim, located by a licensee	5.00
Substitutional record of entry	2.00
Duplicate metal tags, per set of four	1.00
Application for a reservation for mineral rights where totally submerged in water, per acre .....	.10
Filing report of work on reservation of mineral rights where totally submerged in water, per acre .....	.01
Geophysical reservation	250.00
Permit to use airborne geophysical equipment	50.00
Grouping certificate, per nine claims or fraction thereof	5.00
Filing a report of work, per claim .....	.50
Application for extension of time, claim held under entry or lease	2.00
Application for a vesting order against claim held under entry or right or interest	5.00
Registering a dispute, per claim	10.00
Application for a certificate of improvements, per claim	5.00
Application for a lease of mineral rights	10.00
Application for consolidated lease, per claim	10.00
Application for vesting order against a lease or right or interest therein	5.00
Rental of a lease of a mining claim, per acre or fraction thereof	1.00
provided that the minimum rental shall not be less than	5.00
Rental of excess area for first period, per acre or fraction	5.00
Rental for renewal of lease for a further period of twenty-one years if in production, per acre or fraction thereof	1.00
provided that the minimum rental shall not be less than	5.00
Rental of excess acreage for renewal period, if in production, per acre or fraction thereof	5.00

Rental for renewal of lease for a further period of twenty-one years, if not in production, per acre or fraction thereof	\$ 4.00
provided that the minimum rental, for unproductive renewal, shall not be less than	20.00
Rental of excess acreage for renewal period, if not in production, per acre or fraction thereof	20.00
Application for a surface permit	5.00
Rental of a surface permit, per acre or fraction thereof, per annum	1.00
but in no case shall the rental for the entire permit be less than	5.00
Application for a surface lease	10.00
Rental of a surface lease, per acre or fraction thereof, per annum	1.00
but in no case shall the rental be less than	5.00
Recording any document against a claim held under entry or right or interest, for each claim	2.00
Recording any document against surface permit	2.00
Recording any document against a lease or right or interest, for each lease	3.00
Abstract of the records of a claim or lease:	
for first entry .....	.25
for each additional entry .....	.10
Examination of the record book, per claim or lease .....	.10
Inspecting each document filed with a mining recorder .....	.10
Copies or certified copies of any document or record thereof obtained from any officer per folio of 100 words .....	.30
but in no case shall the charge be less than	1.00
Any transaction requiring an Order-in-Council unless otherwise specified in these regulations, each	25.00
Registering change of name of a syndicate, firm, company or corporation	25.00

*Regulations for the Disposal of Quarrying Claims,
Boring Claims and Amber Claims*

Quarrying

Filing application for quarrying location permit	5.00
Filing application for quarrying location lease	10.00
Rental of quarrying location permit or lease shall be at the following rates per acre or fraction thereof during:	
1st and 2nd year, per annum	1.00
3rd and 4th year, per annum	2.00
5th and 6th year, per annum	3.00
7th and 8th year, per annum	4.00
9th year and thereafter, per annum	5.00
Renewal of lease for a further period of 10 years per acre or fraction thereof, per annum	5.00
Registering any document against a quarrying location permit or against any right or interest therein	2.00
Registering any document against a quarrying location lease or against any right or interest therein	3.00

Boring

Filing application for boring location permit	\$ 5.00
Filing application for boring location permit on behalf of another licensee	10.00
Rental of boring location permit per acre or fraction thereof per annum .....	.10
Registering any document against a boring location permit or against any right or interest therein	2.00
Filing application for boring lease	10.00
Rental of boring lease per acre or fraction thereof per annum	1.00
Registering any document against a boring lease or against any right or interest therein	3.00

Amber

Filing application for an amber location permit	5.00
Rental of an amber location permit, per acre or fraction thereof .....	.10
Registering any document against an amber location permit, or against any right or interest therein	2.00
Filing application for an amber lease	10.00
Rental of an amber location lease, per acre or fraction thereof per annum .....	.25
Renewal of an amber location lease, per acre or fraction thereof per annum	1.00
Registering any document against an amber location lease, or against any right or interest therein	3.00

Regulations for the Disposal of Oil and Natural Gas Rights on Crown Lands and the Exploration, Development and Production of Oil and Natural Gas

Application for lease	\$ 10.00
Application for geological and geophysical reservation	250.00
Application for extension of geological and geophysical reservation—per acre .....	.05
Application for drilling reservation	250.00
Annual rental for leases, per acre, primary term .....	.50
Minimum rental for any lease	1.00
Annual rental for leases, per acre, secondary term	1.50
Licence for geological and geophysical exploration and each renewal thereof	25.00
Licence for drilling, each well	25.00
Registration of assignment,	
for each lease	10.00
for each geological and geophysical reservation	10.00
for each geological and geophysical licence	10.00
for each drilling reservation	10.00
Registration for assignment of divided portion of a lease	25.00
Division of a lease, each division	25.00
Reinstatement of a lease, within six months from cancellation, 10¢ per acre, minimum charge	25.00
Renewal of a lease, each renewal	25.00
Registration of other documents, each	3.00
Certified copy of any document, or record thereof, per folio of 100 words .....	.30

Principal Officials

DEPARTMENT OF MINES AND NATURAL RESOURCES

Minister
Deputy Minister
Assistant Deputy Minister
Director of Mines Branch
Chief Mining Engineer
Chief Geologist
Chief Mining Recorder
Chief Assessor

Inquiries for detailed information on and requests for copies of the various acts and regulations referred to above may be directed to the Deputy Minister, or to the Director, Mines Branch, Department of Mines and Natural Resources, Winnipeg, Manitoba.

ONTARIO

Ontario, as one of the four founding provinces of Canada, maintained full control over its mineral resources under the provisions of Section 109 of the British North America Act at the time of Confederation in 1867.

Mineral rights are disposed by a Crown grant system. The system was modified in 1963. Minerals rights are granted under a leasehold patent from the Crown upon completion of assessment work and other requirements. If production of minerals in quantity is achieved a freehold patent may be acquired. Patent rights obtained prior to 1963 are not affected by the change.

If the surface rights are available, the applicant may elect to have them included in his leasehold, but the surface rights may only be used for mining purposes.

Leasehold patents and freehold patents on mineral rights are registered under a land titles system or a registry system. Current grants of Crown lands in the province in all of the provisional judicial districts in the north and in certain counties are registered under The Land Titles Act, R.S.O. 1960, ch. 204. Titles issued currently in some counties and most of the titles granted in the past are registered under The Registry Act, R.S.O. 1960, ch. 348.

DEPARTMENTAL ACTS

DEPARTMENT OF MINES

The department was established by The Department of Mines Act of 1920. Prior to that time the Bureau of Mines had been a part of the Department of Lands, Forests and Mines.

The department is charged with the disposition of mineral rights on Crown lands, the collection of certain fees and mining taxes, the control of mining operations, the establishment of refineries and all regulations made with respect to mines or minerals or mining or mining lands or mining rights.

The department is also concerned with mapping the geology of the province and in providing prospectors and the mining industry with geological maps and reports as an aid in the search for and development of its mineral resources.

The acts and regulations which are administered by the department are as follows:

	<i>Page</i>
The Mining Act, R.S.O. 1960, ch. 241	
Part I — Administration	112
Part II — Mining claims	113
Part III — Placer Mining	115
Part IV — Petroleum, Gas, Coal and Salt	115
Part V — Exploratory Licences and Dredging Leases	116
Part VI — Repealed	116
Part VII — Quarry Permits	116
Part VIII — Mining Commissioner	111
Part IX — Operation of Mines (published separately)	121
Part X — Refinery Provisions	117
Part XI — Offences, Penalties and Prosecutions	Not summarized
Part XII — Enlistment for Active Service	Not summarized
Part XIII — General Provisions	117
Part XIV — Acreage Tax	118

Regulations:

- (a) Regulations Governing Licences to Explore for and Leases to Produce Natural Gas and Petroleum under the Lower Great Lakes, R.R.O. 1960, Reg. 440 117, 118
- (b) Regulations Governing Boring Permits and Leases for Natural Gas and Petroleum North of the Transcontinental Railway, R.R.O. 1960, Reg. 438 118, 119
- (c) Regulations Prescribing Forms, R.R.O. 1960, Regs. 441 and 444 Not summarized
- (d) Regulations Prescribing Boundaries of Mining Divisions, R.R.O. 1960, Reg. 443 Not summarized
- (e) Regulations governing the Survey of Mining Claims, R.R.O. 1960, Reg. 445 Not summarized

The Mining Tax Act, R.S.O. 1960, ch. 242	119
The Beach Protection Act, R.S.O. 1960, ch. 31	122
The Damage by Fumes Arbitration Act, R.S.O. 1960, ch. 86	122
The Canada Company's Lands Act	Not summarized

MINING COMMISSIONER

The Mining Commissioner is a statutory officer appointed under Part VIII of The Mining Act and his decisions or judgments are entirely his own responsibility. Such decisions or judgments may be rendered on appeal from a decision of a mining recorder, or he may elect to hear the entire issue involved *de novo*.

The Commissioner may relieve claims from forfeiture upon such terms as to compensation as he deems equitable and may also grant extensions of time for the performance of working conditions, applying and paying for lease, affixing metal tags and allowing special renewal of miners' licences.

The Commissioner has power to grant easements over lands, the nature of which he considers necessary for the proper working of a mine, including the right to drain or lower the water of any lakes, the right to deposit tailings, to transmit electricity, rights-of-way, etc., and to fix compensation therefor.

The Commissioner may also hear appeals from assessment and taxation under The Mining Tax Act.

The judgments or orders of the Commissioner are appealable to the Court of Appeal for Ontario, and thence to the Supreme Court of Canada.

DEPARTMENT OF ENERGY AND RESOURCES MANAGEMENT

The department, which was formed in 1960, controls through its Energy Branch the exploration and drilling for and the production of oil and natural gas. It also controls the transmission, distribution and utilization of gas and petroleum products.

The act and regulations administered by the Energy Branch of the department are as follows:

	<i>Page</i>
The Energy Act, 1964	
(a) Exploration, Drilling and Production Regulation, O. Reg. 326/64	118, 122, 124
(b) Transmission and Distribution Regulations, O. Reg. 325/64	Not summarized
(c) Natural and Manufactured Gas Code, O. Reg. 333/64	Not summarized
(d) Transmission and Distribution Pipe Line Code, O. Reg. 334/64	122
(e) Fuel Oil Code, O. Reg. 335/64	Not summarized
(f) Liquefied Petroleum Gas Code, O. Reg. 336/64	Not summarized

ONTARIO ENERGY BOARD

The Board, consisting of from three to five members, reports to the Minister of Energy and Resources Management. It was formed in 1960 to replace the Ontario Fuel Board and is a quasi-judicial body which administers The Ontario Energy Board Act, 1964 and certain sections of The Energy Act, The Municipal Franchises Act and The Assessment Act.

The Board sets or approves rates to be charged for gas, approves the terms and conditions of municipal franchises for distribution of gas, issues certificates of public convenience and necessity for the distribution of gas in any municipality, grants leave to construct pipe lines and authorizes expropriations for such construction, regulates the storage of natural gas, adjudicates disputes concerning pooling and unitization, is responsible for the proration of production of oil and gas, and investigates such other matters respecting energy as may be referred to the Board by the Lieutenant Governor in Council or matters referred by the Minister for a public hearing and report.

Disposition of Mineral Rights

THE MINING ACT

Part I—Administration

The act provides that applications or documents affecting unpatented mining claims

are to be filed in the district recorder's office. On patented mining claims The Land Titles Act or The Registry Act applies.

Any person over the age of 18 may on written application obtain from a mining recorder or the Deputy Minister a miner's licence which entitles him to prospect for minerals on Crown lands which are open for staking.

A miner's licence may be issued to an incorporated company. It does not convey the privilege of staking mining claims to shareholders, officers or employees of the company, but a company must be the holder of a miner's licence to be eligible for the transfer of claim rights from stakers.

The retention of unpatented mining claims or an interest therein by an individual or company is dependent upon holding a miner's licence in good standing.

Miner's licences expire on March 31 of each year.

Part II—Mining Claims

Rights to all Crown-owned minerals including petroleum and natural gas may be acquired by staking.

The following Crown lands are not open for staking: land owned by the Ontario Northland Transportation Commission, town sites, railway yards, road allowances, summer resorts, water power sites, Indian Reserves and lands in actual use of occupation by the Crown.

Prospecting, staking or development of mines is prohibited in provincial parks.

A written permit as provided under The Forest Fires Prevention Act must be obtained before any work on a mining claim is begun.

In unsurveyed territory the area of a mining claim shall be a square of 40 acres, with each side having a length of 1,320 feet. The bearings of the boundaries are to be astronomically north and south, east and west.

In surveyed territory a mining claim shall conform with the boundaries of subdivisions of survey lots or sections. The area of such claims may form from 37½ to 50 acres.

Irregular areas may be staked in surveyed or unsurveyed territory, but the claim shall be made to conform as nearly as practicable to the prescribed form and the prescribed area shall not be exceeded.

Surface rights are reserved to the Crown on mining claims over a width of 400 feet from the high-water mark of lakes or rivers, and over a width of 300 feet on both sides of a highway.

A licensee may not stake out and apply for more than 90 mining claims in a licence year, and not more than 18 of such claims may be staked out and applied for in one mining division or in a territory not included in a mining division.

Claims are staked out by erecting a post at each of the four corners of the claim, beginning with the northeast corner, and by connecting the posts with blazed lines if in forest country or by mounds of earth or rock if in non-forested areas.

Application to record a claim must be filed with a recorder not later than 31 days from date of staking, and metal tags must be affixed to the corner posts of the claim not later than 6 months thereafter.

There is an alternative method of pre-tagging claims whereby tags may be purchased in advance and affixed to claim posts at the time of staking.

In the case of pre-tagged claims, under certain circumstances, it is permissible to use common posts at interior points within groups staked by a single licensee.

Where a claim has been on record for 60 or more days, if no dispute is standing against the claim and the recorder is satisfied that the requirements of the act have been met, the recorder may issue a certificate of record, provided a survey, if required, has been performed and approved.

The issue of a certificate of record is final and conclusive evidence of performance of all requirements of the act, except working conditions, up to the date of the certificate and thereafter the mining claim is not, in the absence of mistake or fraud, liable to impeachment or forfeiture, except as provided in the act.

The holder of a certificate of record may acquire a lease to the mining claim if the required assessment work is performed during the 5 years immediately following recording of the claim. Actual mining operations must be performed to the extent of a total of 200 days' work. The work must be performed at a rate of not less than 20 days in the first year, 40 days in each of the three subsequent years and 60 days in the fifth year. The work may be completed in less than the 5-year period, the excess of any one year being credited to requirements in any subsequent year.

Assessment work which is acceptable includes stripping, trenching and shaft sinking, drifting or other lateral work that is at least 10 feet below surface; diamond drilling where the length of the hole exceeds 25 feet; boring other than a core drill to a depth greater than 1,000 feet if authorized by the Minister; geological, ground and airborne geophysical surveys; and claim surveys by an Ontario Land Surveyor.

Payment in lieu of assessment work is not permitted.

The holder of up to 18 contiguous claims may do the required work on one or more claims to apply to all the claims in the group. The holder of a mining claim is entitled to a leasehold patent of the claim which may be registered in the appropriate lands titles or registry office.

The application and payment for a leasehold patent must be made to the recorder within one year from the date upon which all work on a mining claim is required to be performed, and the application must be accompanied by a certificate of record and proof of complete performance of working conditions.

If the surface rights are available the applicant may elect to have them included in his lease, but the surface rights may be used for mining purposes only.

The term of leasehold patent is 21 years at a rental payable in advance of one dollar an acre for the first year and 25¢ an acre for each subsequent year. Mining rights only, may be acquired at a rental of one dollar an acre for the first year and 10¢ an acre for each subsequent year.

Leasehold patents under this section may be renewed for further terms of 21 years each, at the discretion of the Minister.

Where a holder of a lease satisfies the Minister that he is producing mineral in substantial quantities and production has been continuous for more than one year, he is entitled upon payment of the purchase price and upon application and surrender of his lease, to a freehold patent of the lands or mining rights held under the lease.

Where the land is under navigable water a patent may not be granted, but the lessee is entitled to a new lease renewable in perpetuity for periods of 21 years.

Where the lessee or owner of mining rights, or the holder of a mining licence of occupation, requires the use of surface rights lying within or outside the limits of lands for which he has mining rights, for the disposal of tailings or waste material or for any purpose essential to mining or mining exploration, the Minister may lease to him any available surface rights to run conterminous with the lease of the adjoining mining lands

or mining rights. The annual rental of a lease or renewal under this section is one dollar an acre.

Patents or leases of Crown lands contain a reservation to the Crown of all timber and trees standing, but the owner or lessee may cut such trees on the lands as may be necessary for the development or working of the minerals on the property, subject to terms and conditions imposed by the Minister of Lands and Forests.

Every patent or lease contains a reservation for road purposes of 10 per cent of the surface rights.

Prior to September 1, 1963 it was possible to obtain patent rights to a mining claim upon satisfactory completion of assessment work and payment of certain fees. Mineral rights held under patent are not affected by the present system of leasing Crown rights.

Before a patent, lease or licence of occupation of a claim in unsurveyed territory is applied for, the claim shall be surveyed by an Ontario Land Surveyor at the expense of the applicant, but no survey of a mining claim, except a perimeter survey consented to by the Minister, shall be made without written consent of the recorder.

Where two or more contiguous mining claims are recorded in the same name in unsurveyed territory, the Minister may in special circumstances consent to a perimeter survey of the circumference in lieu of a survey of each claim. Before a perimeter survey is made the claims to be included are inspected by an officer of the department. The inspection fee is \$5 per claim and the Minister may require the applicant to provide the inspector with suitable transportation to the location of the claims.

All ores or minerals raised or removed from lands, claims or mining rights leased, patented or otherwise disposed under this act or a predecessor of this act or after the 12th day of April, 1917 shall be treated and refined in Canada. This does not apply to iron ore. The Lieutenant Governor in Council usually exercises the right under the act to permit ores to be exported for treatment.

Part III—Placer Mining

A placer mining claim may be staked on a natural stratum, bed or deposit of sand, earth clay, gravel or cement carrying gold, platinum or precious stones. The provision of the act with respect to mining claims apply as far as practicable to placer mining claims.

Part IV—Petroleum, Gas, Coal and Salt

The holder of a miner's licence may obtain a boring permit from the Minister granting exclusive right for a period of one year to prospect for petroleum, natural gas, coal or salt upon an area open for prospecting and staking out in those parts of Ontario lying north and west of the Mattawa River, Lake Nipissing, and the French River.

It may be noted at this point that permits and licences are required under regulations administered by the Energy Branch, Department of Energy and Resources Management with respect to holes drilled by any means within the province in sedimentary rocks, i.e. other than Precambrian.

Staking applications must be filed with the recorder not later than 31 days from date of staking. Within 90 days a plan of the area staked, a fee of \$100 and proof that the applicant has paid or secured to the owner of the surface rights compensation to provide for any damage or injury that may be caused to the surface rights, must be forwarded to the Minister.

The area included in a boring permit if in unsurveyed territory shall be rectangular, with boundary lines north and south, and east and west astronomically, and if in surveyed territory need not be rectangular in form but may consist of any number of contiguous lots, quarter sections or subdivisions of a section containing in all not more than 640 acres.

Within two months of granting of permit, actual boring, sinking, driving or otherwise searching for petroleum, natural gas, coal or salt must commence and during the term of the permit expenditures must be not less than \$2 per acre. A renewal of one year may be granted at the expiration of the boring permit provided all terms and conditions have been complied with on payment of a fee of \$100.

A licensee may not stake out or apply for more than three boring permits in any one licence year. Permits may be transferred with the consent of the Minister.

Upon proof being given to the Minister that a commercial deposit has been located, the holder of a permit may lease the land or part of it for a 10-year term at an annual rental of one dollar per acre and subject to the expenditure of \$2 per acre per annum with the right of renewal.

Rights by such a lease apply only to petroleum, natural gas, coal and salt, and all other valuable minerals are reserved to the Crown. A lease is not issued for land in unsurveyed territory until a plan of survey made by an Ontario Land Survey is filed. The lessee is not entitled to timber on the permit or lease.

Regulations governing licences to explore for and leases to produce natural gas and petroleum from the beds of the lower Great Lakes have been made by the Lieutenant Governor in Council. The beds of the Great Lakes were withdrawn from staking in 1912. The regulations are described under a separate heading.

Regulations governing boring permits and leases for natural gas and petroleum north of the transcontinental railway have been made by the Lieutenant Governor in Council. The regulations are described under a separate heading.

Part V—Exploratory Licences and Dredging Leases

The Lieutenant Governor in Council is empowered to make regulations for the issue of licences to explore and leases to dredge for alluvial gold, platinum, precious stones or any other valuable mineral not in place.

Part VI—Repealed

The part formerly set forth rules concerning mining partnerships formed prior to April 2, 1931.

Part VII—Quarry Permits

A permit must be secured before the removal from Crown property of any stone or rock quarried for any industrial or commercial purpose, limestone, marble, granite, quartzite, feldspar, fluorspar, gypsum, diatomaceous earth, clay, marl, peat, sand or gravel.

Application for a quarry permit for the removal of more than 1,000 cubic yards or 1,000 tons must be made to the Minister or Deputy Minister. For removal of lesser amounts, application may be made to a recorder.

The holder of a quarry permit is required to keep a detailed record of his operations and file a monthly return showing the quantity and destination of the material removed.

The amount of payment to the Crown for the material removed is determined by the Minister.

A quarry permit does affect the right of the holder of a miner's licence to stake out a mining claim on lands covered by the permit.

Part X—Refinery Provisions

A licence, or certificate of exemption from licence, must be held by the operator of a refinery. Licences and certificates of exemption must be renewed annually.

A refinery is defined as apparatus or equipment that may be used for the refining, retorting, smelting, assaying or treating by any other method, of any ore, mineral or substance for the purpose of recovering or determining the quantity of gold, platinum, silver or any other precious metal therefrom.

Part XIII—General Provisions

If the Minister is satisfied that an area cannot be explored for its mineral possibilities by other than geophysical or other technical methods, he may issue a licence to prospect and explore for base metals and minerals, other than petroleum and natural gas.

A licence covers one parcel of land only, not exceeding 64,000 acres, and is for a term of 3 years at an annual fee of \$1,000. Before a licence is issued, a deposit of \$25,000 must be made with the Minister, to be retained until the licence expires or is surrendered, when it shall be returned to the licensee if all conditions of the licence have been complied with to the satisfaction of the Minister.

A licensee must submit plans of work proposed to the Minister within 90 days of licence date or anniversary, and if they are approved must begin work within 6 months thereafter. A sum equal to one dollar an acre but in any case not less than \$25,000 must be expended annually on approved work. Full reports of work done must be submitted to the Minister.

If the Minister considers the licensee has found a deposit of economic importance, he may grant a lease for not more than 10 per cent of the licence area; the term will be 10 years and the annual rent not less than 50¢ or more than \$5 an acre. The lease may be renewed for terms of 10 years on such terms as the Minister deems proper.

Regulations Governing Licences to Explore for and Leases to Produce Natural Gas and Petroleum Under the Lower Great Lakes

The Minister may issue licences of occupation to explore for natural gas and petroleum on Crown land under the waters of the Detroit River, Lake St. Clair, the St. Clair River, Lake Huron and Lake Erie.

By announced government policy only Lake Erie is presently open for licences of occupation.

The licences are for 3-year periods, cover not more than 8 square miles, and require an expenditure of approximately \$20,000. One person may apply for only three licences per year.

At the end of 3 years if no discovery has been made the licensee may apply for a new licence. When a discovery is made the licensee may convert the licence of occupation to a 21-year renewable production lease. The lease requires a higher acreage rental and a royalty on production.

*Regulations Governing Boring Permits and Leases for
Natural Gas and Petroleum North of the Transcontinental Railway*

The Minister may issue a boring permit for a period of 3 years, covering a maximum area of 100 square miles in the area north of the transcontinental railway. Staking is not required. The permits are issued on application to the Minister.

If the holder discovers petroleum or natural gas he is entitled to a renewable 21-year lease on a checkerboard pattern. These regulations follow the general scheme of western petroleum and natural gas regulations.

The holder of a boring permit in the area north of the transcontinental railway is required to spend not less than \$2,500 per year in exploration work on the area under each permit. If the holder discovers petroleum or natural gas he is entitled to a renewable 21-year lease at an annual rental of 50¢ per acre.

THE ENERGY ACT, 1964

Exploration, Drilling and Production Regulations

A licence is required from the Department of Energy and Resources Management to lease gas or oil rights from an owner other than the Crown, to conduct geophysical surveys, and to produce oil and gas. Such licences expire on December 31 in the year they are issued.

Oil and Gas Conservation

THE ENERGY ACT

Exploration, Drilling and Production Regulations

The required spacing of wells varies from 6¼ to 100 acres per well. The spacing is dependent on the age of the rock formation to be drilled and the target depth of the well. Where agreement cannot be reached on the spacing units to be used in a field or pool, the matter may be referred to the Ontario Energy Board for a public hearing and ruling.

THE ONTARIO ENERGY BOARD ACT

The Board may make orders for the allocation of production, but has not issued any such orders because of the large market in the province relative to production.

The Board has the power to make orders after public hearings joining the various interests in spacing units and pools, i.e. with respect to pooling and unitization.

Mineral Taxation and Royalties

THE MINING ACT

Part XIV—Acreage Tax

An acreage tax of 10¢ per acre is levied on patented mining claims, on patented mining rights where the surface rights are separate, and on land used for mining although originally acquired for agriculture or other purposes.

*Regulations Governing Licences to Explore for and Leases
to Produce Natural Gas and Petroleum under the Lower Great Lakes*

The holder of a licence of occupation to explore for natural gas and petroleum in the Great Lakes is required to pay an annual fee of 15¢ per acre and to incur explora-

tion expenditures during the first year of at least \$500 per square mile and of at least \$1,000 per square mile during each of the second and third years. If the holder discovers natural gas or petroleum he is entitled to a renewable 21-year lease at an annual rental of one dollar per acre. This rental is deductible from the amount of royalty paid in that year. A royalty on production is levied as follows:

- Natural gas — 10 per cent of the prevailing field price
- Petroleum — 10 per cent of well-head value

*Regulations Governing Boring Permits and Leases for
Natural Gas and Petroleum North of the Transcontinental Railway*

If the holder of a boring permit in the area north of the transcontinental railway discovers petroleum or natural gas he is entitled to a renewable 21-year lease at an annual rental of 50¢ per acre. A royalty on production is levied as follows:

- Natural gas — 1½ cents per 1,000 cubic feet
- Petroleum — 10 per cent of well-head value

THE MINING TAX ACT

A general tax on the output of minerals is levied on the profits of all mineral producers under the act.

The rate of tax on the annual profits of mines is:

- First \$10,000 — nil
- \$10,000 to \$1,000,000 — 6 per cent
- \$1,000,000 to \$5,000,000 — 11 per cent
- Over \$5,000,000 — 12 per cent

The profit is based on the value of the ore at the pit mouth or its appraised value less only those operating and administrative expenses directly connected with the operation. Profit is defined as:

- (a) the gross receipts from the output, or
- (b) the actual market value of the output at the pit's mouth, or
- (c) the value of the output at the pit's mouth as appraised by the Mine Assessor

Minus

- (d) the cost of transportation of any output sold, if paid or borne by the owner, holder, lessee, tenant, occupier or operator;
- (e) the proper working expenses of the mine, both underground and above ground, including salaries and wages of all necessary employees at, or about the mine and the proper salaries and office expenses for the necessary office work done at the mine and at the head office of the mine and in immediate connection with the mining operations;
- (f) the cost of power, light, and transportation used in the mining operations and in handling ore or mineral;
- (g) the net cost of food and provisions supplied to the employees of the mine;
- (h) the cost of explosives, fuel, and other supplies necessarily consumed in the mining operation;

- (i) any proper outlay incurred in safeguarding or protecting the mine or mineral product;
- (j) the cost of proper insurance upon the output, if paid or borne by the owner, holder, lessee, tenant, occupier, or operator, and upon the mining plant, machinery, equipment and buildings used for or in immediate connection with the mining operation or for storing the ore or mineral;
- (k) an allowance for depreciation of not less than 5 per cent per annum and not more than 15 per cent per annum of the cost or value as determined by the Mine Assessor at the close of the taxation year of the mining plant, machinery, equipment and buildings until the full value or cost thereof has been allowed as an expense under this section, but where the mining plant, machinery, equipment, and buildings, or any part thereof, have been disposed of, the proceeds from such disposal shall be applied to reduce the cost or value of any additions thereto in the taxation year; and where such proceeds exceed the cost of such additions, such excess shall be applied to reduce the balance remaining to be depreciated of such assets acquired in previous years, and where no such balance remains to be depreciated, such excess shall be applied to reduce deductions otherwise allowable under this section;
- (l) subject to the approval of the Mine Assessor and notwithstanding anything in this subsection, at least 15 per cent of the expenditure incurred, following the commencement of production and which has not at any time in a previous year been allowed as an expense, for actual exploration and development work done in Ontario where the work has as its object the finding, testing, or opening up deposits of metalliferous ore or other solid mineral substances on the following conditions;
 - (i) that such expenditure does not include moneys paid in the purchase of, or in acquiring an option to purchase, or in acquiring the right to mine such deposits.
 - (ii) that such expenditure was made or borne by the person liable to taxation upon the mine under this Act, and
 - (iii) that separate accounts of such expenditure are kept and furnished in reasonable detail with the returns required and
- (m) donations actually made for charitable, educational, or patriotic purposes that are approved by the Mine Assessor.

The Act specifically excludes any allowances for:

- (a) cost of plant, machinery, equipment, or buildings, except as provided by depreciation
- (b) capital invested, or interest, or dividend, upon capital or stock, or investment
- (c) depreciation in the value of the mine, mining land, or mining property, by reason of exhaustion or partial exhaustion of the ore or mineral
- (d) royalties paid for or in respect of the output of a mine situated on lands not the property of the Crown
- (e) cost of development of the mine liable for taxation under the Act before the commencement of output therefrom.

With few exceptions the mines in Ontario treat their own ore, minerals or mineral bearing substance and in an equal number of cases there is no market value for the ore.

Therefore, with few exceptions, the Mine Assessor is called upon to appraise the value of the ore at the pit mouth.

The method of appraisal in general use is to ascertain the value received for the product or products from the ore and from this amount to deduct the following:

- (a) marketing expenses
- (b) milling, smelting, and refining expenses
- (c) a suitable portion of allowable general and administration expenses
- (d) a fair allowance for depreciation of the cost at the end of the taxation year, of processing assets with a minimum of 5 per cent required to be taken in each operation year (allowances of up to 25 per cent have been made)
- (e) an allowance equal to 8 per cent per annum of the original capital invested in processing assets; plus a proper proportion of the capital invested in assets used jointly for mining and processing plus the value of processing spare parts in stock based on such values at the commencement of the taxation year or at the commencement of operations; but the allowance is never more than 65 per cent nor less than 15 per cent of the integrated profit before any allowance for processing.

The value of jointly used assets is distributed between mining and processing on the basis of use, i.e., men in occupation, power consumption, warehouse space occupied, etc.

Mines in Ontario are not required to pay municipal taxes on the buildings, machinery, or equipment, including mills and smelters, nor on the ore body and it should be noted that municipal taxes are not allowed as an expense; there is no tax exempt period and preproduction, corporate and other expenses not directly connected with the mining operation are not allowed to be deducted.

The tax on natural gas is one-half cent per 1,000 cubic feet with the first 50 million cubic feet exempted if the gas is consumed in Canada. The tax is 2¢ per 1,000 cubic feet if the gas is exported.

THE ASSESSMENT ACT

Under the act mines are not required to pay business or property tax but the act and regulations provide for payments to designated mining municipalities.

Operating and Safety Rules

THE MINING ACT

Part IX—Operation of Mines

This act provides for the regular inspection of all operating mines, metallurgical works, quarries and gravel pits in the detailed enforcement contained in Part IX of The Mining Act, designed for the health and safety of all workmen employed in the industry.

The provisions cover the care and use of explosives, fire protection, shaft hoisting equipment and practices, haulage including the use of diesel engines underground, use of electrical power and allied equipment. The health of the workman is protected under regulations that cover dust control, medical examinations, first aid and sanitation.

Provision is also made for the establishment of mine rescue stations where the equipment is maintained for the training of the teams. The actual training is conducted under simulated conditions in the underground workings of the mines.

Part IX is published as a separate “Handbook of Requirements Governing the Operation of Mines”.

THE ENERGY ACT

Exploration Drilling Production Regulations

A licence is required for a machine used in drilling wells. A well may be drilled or deepened only after securing a permit to do so for each well. The regulations require permits with respect to holes drilled by any means within the province in sedimentary rocks, i.e. rocks other than Precambrian.

Rules are set forth on safe drilling and production practices.

Other Acts

THE BEACH PROTECTION ACT

Sand may not be removed for commercial purposes from the bed, bank, beach, shore or water of any lake, river or stream without a licence from the Minister of Mines. The Minister may fix the amount to be charged per year for sand removed under licence. Non-commercial removals are controlled by the municipalities concerned.

THE DAMAGE BY FUMES ARBITRATION ACT

The Lieutenant Governor in Council may appoint an arbitrator to determine damage caused to crops, trees or other vegetation by sulphur fumes arising from the smelting of sulphide ores.

Awards made by the arbitrator are subject to appeal to the Ontario Municipal Board, the ruling of which is final.

THE ONTARIO ENERGY BOARD ACT

Pipe Lines

Any person proposing to construct a transmission line for oil or natural gas in the province must obtain leave from the Ontario Energy Board to construct the line in accordance with Part II of the act.

Authority must also be obtained from the Board to undertake expropriation proceedings on land required for the pipe line.

THE ENERGY ACT

Transmission and Distribution Pipe Line Code

The construction, erection, alteration, installation or removal of pipe lines, plant, machinery or equipment for the transmission or distribution of natural gas may be undertaken only in accordance with these regulations which are administered by the Energy Branch, Department of Energy and Resources Management.

Schedule of Fees

THE MINING ACT

Miner’s licence or renewal thereof for an individual \$ 5.00

Fee for a miner's licence or renewal thereof for a company shall be based on its authorized capital as follows:

Where the authorized capital does not exceed \$50,000 or 50,000 shares of no par value	\$ 25.00
Where the authorized capital exceeds \$50,000 or 50,000 shares of no par value but does not exceed \$1,000,000 or 1,000,000 shares of no par value	50.00
Where the authorized capital exceeds \$1,000,000 or exceeds 1,000,000 shares of no par value	100.00
Recording each boring permit staked out by a licensee	10.00
Recording in each licence year each claim of the first nine claims in a mining division	5.00
and for each additional claim	10.00
Examining claim record book, per claim .....	.25
Inspecting any document filed with a mining recorder .....	.25
Recording a dispute, per claim	10.00
Certificate of record of claim	1.00
Certificate of performance of working conditions	1.00
Filing appeal from recorder's decision	10.00
Filing appeal from Mining Commissioner's decision	20.00
Filing a transfer of the whole of or any interest in a mining claim	5.00
Filing an agreement, power of attorney or revocation thereof, copy of writ of execution, discharge of execution or any other instrument affecting a recorded claim, right or interest per claim	2.00
Substituted miner's licence	1.00
Special renewal licence under section 92, to save forfeiture, twice the prescribed licence fee	
Recording an order to the Mining Commissioner extending the time for performing working conditions, affixing metal tags or making application and payment for patent or lease, per claim	5.00
Recording an order of the Mining Commissioner relieving against forfeiture or loss of rights and extending the time for performing working conditions, affixing metal tags, making application for patent or lease or authorizing the filing of a related report of work, per claim	10.00
Recording an order of the Mining Commissioner, or made on appeal from him, per claim	1.00
Recording a certificate that interest in claim or other recorded right or interest is called in question, per claim	10.00
Copies or certified copies of any document, paper or record obtained from any officer, per folio .....	.10
Copy or certified copy of an application to record a mining claim or of a report of work, each	1.00
Every affidavit sworn before a recorder .....	.25
Abstract or copy of entries in record book respecting a mining claim .....	.50
Making additional entries on an abstract of a mining claim .....	.25
Filing an application for a mining claim under subsection 2 of section 62	10.00
Quarry permit covering an area of 40 acres or less	10.00
and for each additional acre over 40 or part thereof .....	.25

Consenting to the transfer of a mining lease or licence of occupation or any interest in a mining lease or licence of occupation	\$ 5.00
Consenting to any document relating to a mining lease or licence of occupation other than a transfer	2.00

THE ENERGY ACT, 1964

Exploration, Drilling and Production Regulations

Licence to conduct geophysical or geochemical exploration for gas or oil	\$ 10.00
Licence to lease gas or oil rights from an owner other than the Crown	10.00
Permit to bore, drill or deepen a well	15.00
Licence for a machine for boring or drilling wells	10.00
Licence to produce oil or gas for sale	10.00

THE ONTARIO ENERGY BOARD ACT, 1964

Regulations on Fees, O. Reg. 323/64

Fee payable on filing of an application for any proceeding before the Board	\$ 25.00
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Principal Officials

DEPARTMENT OF MINES

Minister
Deputy Minister
Comptroller and Mine Assessor
Director, Geological Branch
Director, Mines Inspection Branch
Director, Mining Lands Branch

MINING COMMISSIONER

Department of Mines, Toronto, Ontario

DEPARTMENT OF ENERGY AND RESOURCES MANAGEMENT

Minister
Deputy Minister
Director, Energy Branch
Director, Conservation Authorities Branch

ONTARIO ENERGY BOARD

Chairman

Inquiries for detailed information on the various acts and regulations referred to above may be directed to the Deputy Minister of the appropriate Department or Chairman of the Board, Toronto, Ontario.

CHAPTER 8

QUEBEC

As one of the founding provinces of Canada, Quebec maintained full control over its mineral resources under provisions of section 109 of the British North America Act at the time of Confederation in 1867.

A Mining Act and a Mining Duties Act received assent in April, 1965. The new acts came into effect on January 1, 1966 replacing the former Quebec Mining Act.

The Mining Act, 1965, established a leasing system for the disposal of Crown owned mineral rights. Formerly mineral rights were disposed by a system of concessions and letters patent.

The first mining act in Quebec was passed in 1880. Prior to that time mineral rights had been granted under French seigniorial tenure or English tenure. In the case of lands granted under French seigniorial tenure, mineral rights remained the property of the Crown unless expressly granted. In lands granted under English tenure for agriculture or colonization purposes the mineral rights, except for gold and silver, formed a part of the grant unless expressly reserved to the Crown. Mineral rights ceded under the English tenure prior to 1880 may be revoked under the new Mining Act if no mining work has been done during the ten years preceding notice given by the Minister.

The Mining Act of 1880 separated mining rights from surface rights and reserved the rights on all minerals to the Crown. Grantees of lands for agricultural or colonization purposes, as from that date, did not receive the mineral rights.

Under the act of 1880 and subsequent amendments, a mining concession could be purchased on mineral lands in the province which gave the right to letters patent and absolute title.

Mining concessions sold after 1880 can be revoked under the Mining Act, 1965 in the following circumstances:

- (a) The Mining Act requires the owner of a concession to undertake the working of mines within two years from the date of purchase, failing which the concession can be revoked.

- (b) Mining concessions patented before July, 1911 can be revoked if no mining work has been done during the ten years preceding notice given by the Minister.
- (c) Mining concessions, patented or unpatented, sold after July, 1911 can be revoked for failure to pay the annual tax of one dollar per acre when no work has been done on the property during the year.

The holder of a mining lease under the new Mining Act has the rights and obligations of an owner.

A record of mining concessions, mining leases, development licences, claims, exploration licences and operating leases is maintained by the Department of Natural Resources. Titles to privately owned mineral rights are subject to the provisions of the Civil Code concerning the registration of real rights.

DEPARTMENT OF NATURAL RESOURCES

The department was established by the Department of Natural Resources Act, 1961. The department combines the former Department of Mines and Department of Hydraulic Resources.

The department is responsible for the disposition of mineral rights and the collection of mining duties. It provides assistance to the mining industry through the establishment of technical surveys, opening of access roads and the organization of mining villages.

The department in the field of minerals is responsible for the administration of the following acts and regulations:

	<i>Page</i>
Mining Act, S.Q. 1965, ch. 34	127, 132, 134
(a) the following rulings have the force of regulations under the act:	
Acceptance of detailed geological surveying as assessment work, 1963	128
Acceptance of geophysical surveys as assessment work, 1961	
Acceptance of airborne geophysical surveys as assessment work, 1964	128
Acceptance of laboratory and pilot-plant research as assessment work, 1963	128
(b) Regulations governing prospecting and drilling operations for petroleum and natural gas are being prepared	Not summarized
(c) Regulations for the Safety and Protection of Workmen in Mines and Quarries are being reviewed and redrafted	134
Quebec Mining Act (former ch. 196 which was abrogated as of January 1, 1966) R. S. Q. 1965, ch. 89	Not summarized
Mining Duties Act, S.Q. 1965, ch. 35	132
Unwrought Metal Sales Act, R.S.Q. 1964, ch. 90	135

Other acts which also directly affect the mineral industry within the province:

Act to Organize Mining Towns, R.S.Q. 1964, ch. 194	135
Municipal Organization of Mining Villages Act, R.S.Q. 194, ch. 195	135
Mineral Exploration Partnerships Act, R.S.Q. 1964, ch. 284	135

Disposition of Mineral Rights

Mining Act, 1965

Minerals are defined as all natural, solid, or gaseous mineral substances and fossilized organic matter. The act provides for the issuance of mining rights in the following forms: claims, development licences, special licences, exploration permits, exploration licences, and mining leases.

Any person of 18 years may obtain a prospector's licence upon paying a fee of \$10. A licensee may hold as many as six licences at the same time with the right to stake out a maximum of 200 acres under each licence. A person who has obtained a development licence or has obtained or transferred a staking claim may obtain another prospector's permit. Staking by proxy is not permitted.

The licensee may prospect on public lands and private lands where minerals are reserved to the Crown but not on land for which the mining rights are already held or on land withdrawn from mining operations by a competent authority.

A claim which has lapsed or been abandoned may not be restaked within 30 days and may not be restaked by the former holder within 60 days.

Staking of Claims

In unsurveyed territory each prospector's licence entitles the holder to stake out 5 claims. Substantial compliance only is required for the following rules. The sides must be roughly 20 chains in length and run north-south and east-west and each claim have an area of approximately 40 acres. The staker must plant a stake at each corner of the claim. The stakes are to have a diameter of 4 inches, to rise 4 feet above the ground and to have a metal plate bearing the claim number, post number and the staker's licence number. If a person stakes out contiguous claims, he may plant a single stake at the apices of the adjacent angles. Where suitable wood is not available, the corners may be marked by iron or wooden stakes at least one inch in diameter, rising 4 feet high above the ground, and kept in place by a mound of earth or stone at least 30 inches in diameter and 18 inches high.

In surveyed territory the sides of the claim must follow the original survey lines. In other respects, staking procedure is the same as in unsurveyed territory, except that in the case of whole lots the staker is required only to mark out or indicate on the ground the range lines between the stakes. Staked lands may be composed of whole lots, half lots, or quarter lots, the aggregate not to exceed 225 acres. A lot of not more than 225 acres may be staked under a single licence. No licence holder may, however, exceed a total area of 1,200 acres. In the Magdalen Islands, staking may be done as in unsurveyed territory.

Claims must be recorded within 15 days at the office of the Minister or of the mining recorder having jurisdiction. If any claim is more than 50 miles in a straight line from the nearest recorder's office, the time for filing is increased by one day for every 15 miles above 50 miles, but may not exceed 30 days.

A claim is valid for 12 months from the date of staking. It may be abandoned only by written notice to the Minister. A claim may be cancelled by the Minister for cause.

The holder of a claim on Crown lands may erect only those buildings required for his mining work.

A claim holder is required to perform 5 hours' manual labour per acre in the first year in order to be eligible for a development licence.

A claim holder may extract or ship only enough mineral substances as may be necessary for analysis, assay or study. The Minister may authorize the extraction and shipment of a quantity of crude ore not exceeding 300 tons each year, if the treatment mill is situated within the province.

Claims do not give the right to the petroleum, natural gas, sand or gravel contained within the land staked.

Development Licences

The holder of a claim who wishes to retain his rights must apply for a development licence not later than 10 days after the expiration date of the claim. The total area contained in a development licence may not exceed 225 acres, and the application must be accompanied by a payment of \$10 for the licence and 25¢ per acre for annual rental.

The development licence is valid for one year, and is renewable on application accompanied by a payment of \$10 for the renewal, together with annual rental at the rate of 25¢ per acre for the first and second renewals, and 75¢ per acre for subsequent renewals.

The work required each year for each acre or fraction is the equivalent of 5 hours of manual labour. For a claim north of the 52° of north latitude, work requirements are 10 hours for the first two years. Excess work is applicable to subsequent renewals.

Contiguous claims may be grouped for assessment work up to a total area of 225 acres. In the case of the assessment work done by boreholes, the total grouped area may be increased to a maximum of 1,200 acres.

Prospecting, rock stripping, trenching, rock excavation, sinking of shafts or underground excavation may be included on the basis of the number of man hours of work done, but prospecting may not be counted as more than one-quarter of the required work.

Each hour of work with a mechanical drill, shovel or any machine driven by power shall be calculated at the rate of 3 hours of work per man-hour required to operate it. Drill holes of at least 25 feet in depth in which core, sludge or rock fragments are recovered, are calculated at a rate of 4 hours of work per foot, including stand piping. Work by bulldozer is calculated at the rate of 6 hours of work per man hour required for operation. A log of excavations and drilling must be kept. Survey work is calculated at 200 hours of labor per mile surveyed.

Detailed geological surveying, geophysical surveys, airborne geophysical surveys, and laboratory and pilot-plant research are accepted as assessment work in accordance with formal rulings made on these points.

The holder of a claim or development licence may apply to substitute a payment of \$5 per acre in lieu of assessment work.

Mining Leases

A claim-holder who is able to establish reasonable indications of a mineral deposit capable of being economically worked is entitled to a mining lease. An underground mining lease is issued on Crown-owned mineral rights on private lands. The applicant must furnish a report by a mining engineer or geologist.

The area of claims granted by lease to any one person during a 12-month period must not exceed 200 acres. However the Lieutenant-Governor in Council may authorize the Minister to increase such area to 1,000 acres. In the case of leases derived from

exploration permits, the lease area may be as great as one tenth of the area covered by the exploration permit.

A mining lease may be granted between a minimum of 5 and a maximum of 20 years. It may be renewed three times for 10-year periods. Subsequent renewals may be granted by the Lieutenant-Governor in Council.

The holder of a mining lease is obligated to commence mining operations within two years.

Annual rental of a mining lease is one dollar per acre, payable in advance.

The Minister, for valid reasons, may extend the date of commencement of mining operations, in which case annual rentals are increased to \$2 per acre for the third and fourth years, \$3 per acre for the fifth and six years, \$4 per acre for the seventh and eighth years, \$5 per acre for the ninth and tenth years and \$6 per acre thereafter.

A mining lease confers the right to all mineral substances belonging to the Crown, except petroleum, natural gas, sand and gravel, but does not include the right to use the surface except for mining purposes.

The holder of a mining lease or mining concession granted before 1968 may normally only erect such buildings as are essential to the mining operation. However, the Minister of Natural Resources and the Minister of Municipal Affairs may authorize such a holder to subdivide his land into lots, erect buildings, sell the lots and buildings and lease or otherwise dispose of the surface rights to his land. The holder may be required to pay a portion of the sale price into the provincial consolidated revenue fund and a portion into the municipal fund.

The Lieutenant-Governor in Council may establish mining villages, mills and workshops on Crown lands without indemnifying the holders of claims or development licences. The purchasers of lots may receive letters patent which are not revocable.

On Crown lands every mining lease is subject to a reserve of 5 per cent of the surface for roads and other purposes of the Crown.

The holder of a mining lease may abandon all or part of the leased land by applying to the Minister in writing provided that he has paid all his dues, and delivered a complete set of plans.

Mining Concessions

As a transitional measure, mining concessions will be granted on claims staked before January 1, 1966 if certain conditions are met.

Applications for a concession must be made before December 31, 1967. The applicant must establish to the satisfaction of the Minister reasonable indications on the claims of a mineral deposit which can be economically developed. The price to be paid by the applicant for the concession is \$30 per acre.

Letters patent for a mining concession may be issued only upon proof of commencement of mining operations. Such letters patent may be cancelled if no mining operations have been carried out during ten consecutive years.

All mining concessions are subject to an annual tax of one dollar per acre, except where letters patent to the concession were granted prior to July 1, 1911. The tax will be remitted upon proof that exploration work or mining operations of a cost of \$10 per acre have been carried out.

Under the act of 1880 and subsequent amendments, a mining concession could be purchased on mineral lands in the province which gave the right to letters patent and absolute title.

Mining concessions sold after 1880 can be revoked under the Mining Act, 1965 in the following circumstances:

- (a) The Mining Act requires the owner of a concession to undertake the working of mines within two years from the date of purchase, failing which the concession can be revoked.
- (b) Mining concessions patented before July, 1911 can be revoked if no mining work has been done during the ten years preceding notice given by the Minister.
- (c) Mining concessions, patented or unpatented, sold after July, 1911 can be revoked for failure to pay the annual tax of one dollar per acre when no work has been done on the property during the year.

Timber-Cutting Rights

When timber is reserved to the Crown or is included in a timber limit, the holder of a claim, development licence, mining lease or concession is entitled to cut trees for the construction of buildings and other purposes necessary for his operations on payment of stumpage dues.

Sand, Stone and Gravel

The Lieutenant-Governor in Council, under regulations, may dispose of the right of working sand and gravel deposits. Rights to sand, stone and gravel are not included in the surface rights granted by the Crown after January 1, 1966 except for domestic needs of the owner.

Petroleum and Natural Gas

An exploration licence or an operating lease will be granted only to firms authorized to carry on business in the province.

Exploration Licence: An applicant is required to furnish the names and addresses of the directors and officers of the company and proof of the company's financial ability to carry out its commitments as well as a statement giving the nature and extent of the proposed exploration work.

The land covered by an exploration licence must be in one block not exceeding 60,000 acres in area. The term of the licence is 5 years. An annual rental of 3¢ per acre is payable in advance.

Exploration work must be carried out each year with a required minimum cost rising from \$3,000 the first year to \$15,000 in the fifth year. The work is to consist of geological or geophysical work or the drilling of wells.

An exploration licence may be renewed annually in whole or in part for five consecutive years. The annual rental on renewals is 15¢ per acre, and the minimum work requirement is \$20,000 per year.

Exploration expenditures in excess of requirements may be carried over to subsequent years. Payment in lieu of work will be accepted.

Lands under several exploration licences within a radius of 25 miles and having a total area not greater than 180,000 acres may be grouped for work requirements. Application for such grouping must be made annually.

The holder of an exploration licence must notify the Minister as soon as he has discovered petroleum or natural gas.

Operating Lease: As soon as the holder of an exploration licence has discovered petroleum and natural gas in commercial quantities he may apply for one or more operating leases to cover up to 50 per cent of exploration licence area.

If the holder does not apply for an operating lease promptly the Minister may require him to do so within 90 days.

Production must begin at once after petroleum and natural gas are found in commercial quantities. However, he may obtain an extension of the exploratory licence for a period of 6 months after the discovery of petroleum and natural gas in commercial quantities upon payment of a fee of 15¢ per acre.

The land covered by an operating lease must be in one block containing not less than 500 acres nor more than 5,000 acres. The block, if possible, must not be more than twice as long as it is wide. A survey is required where the leased area lies in unsurveyed territory.

The term of a lease is 20 years. It may be renewed for three consecutive 10-year periods. A fourth renewal may be granted if the leased area is still producing oil and gas. An annual rental of one dollar per acre is levied in addition to royalties on production.

Exploration licences and operating leases on lands abandoned by a holder of an exploration licence, and the operating leases on any available land designated by the Minister may be disposed of by public tender.

On areas acquired by public tender on which no well has been previously drilled, the holder must begin drilling within one year. The holder may group several operating leases for compliance with the requirement to drill, provided that the leases lie in whole or in part within a radius of 12 miles and that the total area does not exceed 10,000 acres.

Special Exploration Permits and Leases

In remote areas there is a provision for acquiring rights to minerals other than petroleum and natural gas without staking claims.

The Lieutenant-Governor in Council may make regulations authorizing the issue of exploration permits to explore for all mineral substances in New Quebec, and alluvial deposits not including petroleum and natural gas throughout the province under such conditions as he may determine. Such permits are issued only to companies incorporated in the province.

The area under permit may not be less than 25 nor more than 150 square miles. The term of the permit may not exceed 10 years and the annual rent be less than \$150 per square mile.

The holder of an exploration permit is entitled to a mining lease on not more than one-tenth of the permit area without staking for the duration of the permit.

Right of Entry

The holder of a permit, claim, licence, or lease may exercise mining rights on land to which the surface rights are privately owned only with the consent of the surface owner or through expropriation proceedings.

The act provides that the holder of mineral rights may obtain permission to expropriate land or buildings necessary to the exploitation of the minerals. Expropriation proceedings are conducted in accordance with the general law of the province.

Mining Judge

The Mining Judge deals with appeals from decisions of the Minister, and with those cases referred to him by the Minister. The Mining Judge is appointed by the Lieutenant-Governor in Council.

He has, to the exclusion of any other court, jurisdiction over all litigation respecting in general any rights, privileges or titles conferred by the Mining Act, and in particular:

- (a) the existence, validity or forfeiture of any prospector's licence, claim, development licence, exploration licence, operating licence, mining concession, mining lease, special licence or exploration permit.
- (b) the perimeter, boundaries and extent of the land covered by such titles.

Decisions of the Mining Judge may be appealed to the Court of Queen's Bench.

Mineral Taxation and Royalties

MINING ACT

Petroleum and Natural Gas

The royalties payable on production of petroleum and natural gas from an operating lease range are fixed by the Lieutenant-Governor in Council. The rate of royalty may range from 5 per cent to 17 per cent of the market value at the well-head. A monthly statement of quantity and value is required.

MINING DUTIES ACT

Duties are levied on the annual profits of mines in the province under the Mining Duties Act which received assent in April, 1965 and came into effect on January 1, 1966. The rate of duties are:

On first \$50,000	nil
\$50,000 to \$1,050,000	9 per cent
\$1,050,000 to \$2,050,000	11 per cent
\$2,050,000 to \$4,050,000	13 per cent
Over \$4,050,000	15 per cent

The annual profit is determined by deducting the operating expenses and certain allowances from the gross value of output.

The duties levied under the act are on the profit derived from minerals at the point of egress from the mine. This is in contrast to the procedure followed previously under the Quebec Mining Act wherein the duties were on the profit derived from processing as well as the mining of minerals.

The annual profits of related operators are determined in combination for the purpose of calculating the duty payable, and only one exemption of \$50,000 is allowed.

Reassessment of duties is limited to four years from the date of the original assessment, in the absence of fraud or misrepresentation. The operator may lodge an objection to an assessment within 90 days of the mailing of the notice of assessment. Assessments may be appealed to the Court of Appeal within 90 days of the mailing of confirmation of assessment. Duties are payable for each year in 12 monthly installments beginning 6 months before the end of the operator's financial year.

The gross value is the market value of the mineral substances and may be determined either on the basis of sales or production.

The allowable operating expenses of the mine, mill, smelter and other installations are as follows:

- (1) Salaries and wages of employees and workmen engaged in the mining operation.
- (2) General and administrative expenses directly connected with the mining operation.
- (3) The cost of any research carried out in the province for the purpose of reducing production costs or of salvaging additional mineral products, less the revenue derived from such research.
- (4) Contributions paid by the employer with respect to employees engaged in the mining operation, under
 - The Workmen's Compensation Act
 - The Minimum Wage Act
 - The Collective Agreement Decrees Act; and
 - The Unemployment Insurance Act.
- (5) Contributions made for the purpose of ensuring the safety, welfare or health of employees engaged in the mining operation.
- (6) All gifts made in the province during the fiscal year for cultural, education or charitable purposes to organizations approved by the Minister, but not exceeding 10 per cent of the net amount after every other deduction from the gross value.
- (7) The cost of power required for the mining operation.
- (8) The cost of explosives, fuel and other supplies consumed in the mining operation.
- (9) The cost of insurance upon the output of the mine and upon movable and immovable property used in the mining operation.
- (10) Municipal and school taxes incurred by the operator, with respect to the mining operation or property used for such operation.
- (11) The cost of transportation of the output of the mine if borne by the operator.
- (12) Expenditures for maintenance and repair incurred during the year with respect to movable and immovable property used in the mining operation.
- (13) The cost of work done during the fiscal year with respect to shafts, excavations, drifts, trenches, borings or other means of exploration or development in the lands of the mine for the working thereof or for mineral exploration.
- (14) The cost of mineral exploration and of development incurred during the year, in the province, on lands other than those which are the site of the principal mining operation, provided that such costs is borne by the operator and that a detailed analysis thereof is submitted to the Minister and
- (15) An allowance for depreciation, an allowance for development and an allowance for treatment of ore.

The annual allowance for depreciation is not more than 15 per cent on a straight-line basis of the cost of roads, buildings and operating equipment used in the mining operation. The depreciation which has been allowed on an asset may be recaptured. The depreciable cost of an asset transferred between related persons is the lesser of the

cost to the original owner less depreciation allowed to the original owner and related persons, or the purchase price.

Where exploration and development costs on or off the mine property but within the province are not deducted in full from the gross value in the year in which they were incurred, or where such expenses are incurred in a pre-production period, at least 15 per cent of the total allowable development must be claimed for each fiscal year after that in which commercial production commenced.

Costs incurred before January 1, 1965 may not be included in the development allowance.

The annual allowance for the treatment of ore is 8 per cent of the cost of the depreciable property used for the treatment of ore. It may not exceed 65 per cent of the profit nor be less than 15 per cent.

No deductions from the gross value are allowed in respect of:

- (a) any sum expended, except to the extent to which it was expended by the operator for the purpose of realizing or producing a profit derived from a mining operation.
- (b) costs of incorporation, organization or reorganization.
- (c) the cost of development of the mine before the commencement of production in commercial quantities except that permitted as a development allowance.
- (d) any loss or replacement of capital, or payment to capital account, except as expressly permitted by the act.
- (e) amortization of the value of the mine and of the mining land.
- (f) royalties paid in respect of output.
- (g) expenses relating to manufacturing and industrial operations.
- (h) costs of financing.
- (i) duties payable under this act.
- (j) taxes on profits, capital and places of business and income taxes.
- (k) dividends and any distribution of surplus or capital.
- (l) reserves and provisions.
- (m) the portion of expenses covered by a subsidy such as a payment under the Emergency Gold Mining Assistance Act or
- (n) deductions allowed in computing a previous year's profit.

If mineral substances from mines in the province are shipped for treatment outside the province without the prior authorization of the Lieutenant-Governor in Council, he may require additional duties not exceeding twice the amount of the duties established according to the schedule of duties payable.

Operating and Safety Rules

MINING ACT

The act provides for the making of regulations to ensure safety and health in mines and to prescribe safety measures in mines no longer in operation.

Under the act, representatives of labour unions may be required to accompany departmental inspectors during regular visits to check compliance with safety regulations and during investigations of accidents.

The location selected for every smelter, mill or refinery, must be approved by the Lieutenant-Governor in Council.

Other Acts

ACT TO ORGANIZE MINING TOWNS

The act, which is administered by the Department of Municipal Affairs, provides that a mining town may be developed on land selected by the Minister of Natural Resources. The necessary land may be provided under the terms of the Mining Act.

The act sets forth the rules governing the civic organization of the town.

MUNICIPAL ORGANIZATION OF MINING VILLAGES ACT

The act provides for the establishment of mining villages on Crown lands.

MINERAL EXPLORATION PARTNERSHIPS ACT

The act, which is administered by the Secretary of the Province, permits the establishment of small exploration partnerships with limited liability. The authorized capital of such a partnership may not be less than \$1,000 nor greater than \$10,000.

UNWROUGHT METALS SALES ACT

No person may, without being the holder of a licence from the Minister receive, purchase, sell or alienate unwrought metals in the province. Unwrought metals are defined as gold, silver, platinum or other precious metal.

The act does not apply to a person who purchases precious metals from the holder of a licence in a form suitable for industrial, artistic or scientific purposes.

Schedule of Fees

Prospector's licence	\$10.00
Development licence or renewal	10.00
Rental under development licence	0.25 per acre
Rental under 1st and 2nd renewal of development licence	0.25 per acre
Rental under subsequent renewal of development licence	0.75 per acre
Annual rental of mining lease	1.00 per acre
Mining concession	30.00 per acre
Annual rental mining concession	1.00 per acre
Petroleum and natural gas exploration licence annual rental	0.03 per acre
Renewal of exploration licence beyond 5 years annual rental	0.15 per acre
Licence to drill for underground water	5.00
Operating lease (oil and gas)	1.00 per acre
Transfer of mining concession, development licence, lease, claim or exploration licence	10.00

Principal Officials

DEPARTMENT OF NATURAL RESOURCES

Minister

Deputy Minister

General Director of Planning

General Director of Mineral Resources

Director of Geological Services

Director of Mining Services

Inquiries for detailed information on and requests for copies of the various acts and regulations referred to above may be directed to the Deputy Minister, Department of Natural Resources, Quebec, Quebec.

CHAPTER 9

NEW BRUNSWICK

As one of the four founding provinces of Canada, New Brunswick maintained full control over its mineral resources under provisions of section 109 of the British North America Act at the time of Confederation in 1867.

Ownership of most of the mineral rights in the province is vested in the Crown. However, there are some areas in which not all minerals were reserved to the Crown in grants of land.

Grants of land made prior to 1784 when New Brunswick territory was a part of Nova Scotia contained a provision only reserving to the Crown, "All mines of gold and silver, precious stones, lapis lazuli, lead, copper and coals". During the period 1784 to 1805 the reservation to the Crown was, "All mines of gold, silver, copper, lead and coals".

Ownership of privately owned minerals can be determined with certainty only by an examination of the provisions of the original grant of land at the Crown Lands Office.

Since 1805 all minerals with minor exceptions have been reserved to the Crown, and are property separate from the soil. Crown-owned mineral rights are disposed through mining claim, licence, and lease.

DEPARTMENT OF NATURAL RESOURCES

The Mines Branch of the department is responsible under the provisions of the Mining Act for the disposition of mineral rights, the levying of royalties and rentals, and control over operating and safety practices.

The Mines Branch is responsible for the administration of the following acts and regulations:

	<i>Page</i>
Mining Act ch. 45, 1962	138, 141, 142
Regulations Governing Certain Works on Mining Rights, O.C. 62-656 ..	140

	<i>Page</i>
Regulations Governing the Operation of Coal Mines, O.C. 62-658	142
Regulations Governing The Operations of Mines and Quarries, O.C. 62-658	142
Schedule of Fees, O.C. 62-657	142
Act Respecting Ownership of Minerals, 1953	140
Oil and Natural Gas Act, ch. 162, 1952	140, 142
Oil and Natural Gas Regulations	141, 142
Mining Income Tax Act, ch. 10, 1954	141
The following are administered by other branches of the department:	
Crown Lands Act, ch. 53, 1952	141
Sand Removal Act, ch. 13, 1954	141

Disposition of Mineral Rights

MINING ACT

Mining rights are issued under one of the following classes: prospecting licence, mining claim, mining licence, mining lease, and reservation.

Minerals to which the act applies are defined as all minerals and include the following: salt, infusorial earth, ochres, or paints the base of which is found in the soil, fire clays, carbonate of lime, sulphate of lime, gypsum, coal, bituminous shale and albertite and such other substances as may, from time to time, be declared mineral by order of the Lieutenant-Governor in Council; but does not include oil and natural gas. Mines and minerals include carbonate of lime, sulphate of lime, gypsum, all radioactive minerals, salt, glauberite and other intimately associated salts.

Prospecting Licence

A prospecting licence may be obtained by any person over the age of eighteen upon payment of a fee of \$10. The licence gives the right to prospect on privately owned or Crown lands within the province, excepting lands which have been specially reserved from general prospecting or which are already held under mining claim, licence, or lease.

It may be noted that mining leases may be granted with respect to stated minerals only. Hence, a prospecting licence may give the right to prospect mining leases for other minerals.

To hold rights to a claim, an incorporated company must obtain a prospecting licence. However, such a licence does not give authority to stake claims.

A maximum of 25 claims may be staked annually on a prospecting licence. Proxy staking is permitted. Prospecting licences expire on October 31 of each year.

Mining Claims

A mining claim is to be staked with boundaries magnetic north-south and east-west, in the form of a square having an area of 40 acres.

Each claim is to be marked with four posts where possible. Metal tags showing the claim number are to be fastened to each post at the time of staking or within 3 months of the time of recording the claim.

Claims must be recorded within 30 days of the time of staking. A certificate of

record will be issued upon request 60 days after recording of the claim, if no dispute has been lodged against the claim.

A mining claim is valid for one year from the date of recording. The mining claim may be renewed annually for a maximum duration of 4 years. Each renewal is granted on payment of a fee of one dollar and proof of performance of days of assessment work on the claim of 8 hours each to the extent of 25 before the first renewal, 50 before the second, and 75 before the final renewal and 100 prior to conversion to a mining licence. Excess of work in one year may be credited to any subsequent year. A maximum of 25 contiguous claims may be grouped for assessment work.

Payment in lieu of work may be made at the rate of \$5 per day of work. The payment may be recovered if the work is performed in the following year.

Mining Licences

A mining licence may be granted to the holder of recorded claims who has performed the required assessment work. The licence may cover an area not exceeding 25 contiguous claims. A perimeter survey is required.

A mining licence gives the right to mine, and is valid for one year. A licence may be renewed annually if work requirements have been fulfilled and an annual rental paid of 25¢ per acre. Work is required at the rate of 25 days of eight hours each for each area of 40 acres. Payment in lieu of work may be made at the rate of \$5 per day of work.

Excess work may be credited to a subsequent year within 10 years from the date such work was performed.

A monthly report from the operator of a coal mine, and a quarterly report from the operator of other mines on mining licences is required.

Mining Leases

A mining lease will be granted to the holder of recorded mining claims who has performed the required assessment work. The lease may cover an area not exceeding 25 contiguous claims. A perimeter survey is required.

The holder of a mining licence may convert it to a mining lease. A lease has a term of 21 years and is renewable upon application.

The annual rental on a mining lease for coal is 25¢ per acre which is reduced by the amount of royalty paid in the preceding year on coal produced from the mining lease. The rental on other mining leases is one dollar per acre per year.

To retain a mining lease, work must be performed annually at the rate of 25 days for each 40 acres in the lease. Reports by mine operators on mining leases are required as for those on mining licences.

Reservation

Under exceptional circumstances an area may be reserved from general prospecting and staking and an individual or company may be given the exclusive right to prospect the reserved area.

Adjudicators

The Minister may appoint one or more persons known as adjudicators who may

investigate and decide all contentious matters relating to any rights or privileges arising from the Mining Act.

Decisions of the adjudicators may be appealed to the Supreme Court of New Brunswick.

Right of Entry

The holder of any mining right may use the surface of either privately owned or Crown-owned land, but only to the extent necessary to the opening and working of mines. A mining licensee or mining lessee may be required to give a bond satisfactory to the Minister to ensure payment of damages caused by such operations.

Grants of Land

The Minister, with the approval of the Lieutenant-Governor in Council, may grant the surface of Crown lands for use in connection with a mining plant.

Regulations Governing Certain Work on Mining Rights

Drilling, surveying, geological, geophysical and geochemical surveys, and work done using a bulldozer or equipment driven by compressed air or other mechanical power is accepted as work on a mining right, when such work was done on the ground or in proving the value of a mineral deposit.

One day of work is credited for each \$5 spent on allowable types of work and supported by a certified statement.

ACT RESPECTING OWNERSHIP OF MINERALS

The Lieutenant-Governor in Council is empowered to declare all minerals, whether owned by the Crown or by any other person, to be property separate from the soil, and to be vested in the Crown in the right of the province.

Authority is given to provide for compensation, and its amount, to persons sustaining loss or damage by reason of any order made under the act.

An order under the act may not affect any mining licence or lease issued under the Mining Act.

OIL AND NATURAL GAS ACT

The Lieutenant-Governor in Council may grant licences to search for oil and natural gas within areas in the province, specified in each licence to companies authorized to do business in the province. The term of a licence may not exceed 5 years.

Expenditures on exploration during the term of the licence are required at the rate of not less than \$20,000 each year.

A well which is capable of producing oil or gas must be operated continuously if it can be operated at a rate of annual profit of 6 percent. Upon discovery of a well which can be operated at a 6 per cent profit, the licensee may be granted a lease.

The area granted under licence or lease conforms with a topographical grid system.

A licensee or lessee must report the presence of other minerals discovered while drilling for oil and gas. In the case of salt full information must be supplied to the Minister at the expense of the operator.

The act provides authority for granting permission to construct pipe lines, tanks, tramways and railways necessary to the development and disposal of oil and natural gas.

Oil and Natural Gas Regulations

The department is empowered to establish well spacing and drainage pools, to allocate production from any field or pool, and to control production practices.

CROWN LANDS ACT

The Minister may grant leases on Crown-owned lands for the quarrying of building stone, for the taking of sand and gravel for construction purposes, and for the taking of ceramic substances, mineral waters, soapstone, and peat.

Such leases may be granted for a term not exceeding 10 years upon such terms and conditions as may be fixed by the Minister.

SAND REMOVAL ACT

The act limits the amount of sand and gravel that may be removed from a shore area to one-half cubic yard per day unless a lease has been granted under the Crown Lands Act.

Mineral Taxation and Royalties

MINING ACT

A royalty of 14¢ per short ton is levied on coal mined from property held under a mining licence or a mining lease. The amount of rental payable on a mining lease for coal is reduced by the amount of royalty paid in the preceding year.

MINING INCOME TAX ACT

A tax is imposed on the annual net income from mining operations in the province under the Mining Tax Act.

One-half of the amount estimated is payable within 30 days after the end of the first 6-month period of the taxation year. The balance of tax is payable within 3 months of the end of the company's fiscal year.

The rates of tax are:

On first \$10,000	Nil
\$10,000 to \$1,000,000	7 per cent
\$1,000,000 to \$5,000,000	8 per cent
Over \$5,000,000	9 per cent

The net income is calculated by deducting income from sources other than mining operations and a processing allowance related to the cost of processing assets from the net profit as shown on the company's financial statement. To this amount is added depletion, non-allowable depreciation, royalties to private owners, provincial mining taxes, expenses in operations other than mining, and expenses incurred outside of the province to arrive at the net taxable income from mining operations.

The act stipulates that the location of every smelter, mill or refinery built in the

province shall be chosen, determined or approved by the Lieutenant-Governor in Council.

If mineral bearing substances from mines in the province are removed outside the province for treatment, or are treated in a smelter, mill or refinery in the province the location of which has not been approved, the operator of the mine may be required to pay up to three times the amount of taxes otherwise established under the act.

OIL AND NATURAL GAS ACT

The act provides for payment of a royalty to the Crown on oil and gas under conditions prescribed by the Lieutenant-Governor in Council.

Operating and Safety Rules

MINING ACT

Regulations Governing the Operation of Coal Mines

Comprehensive rules are set forth governing underground and surface operations and practices followed in the use of mechanical and electrical equipment which will ensure the greatest safety to employees in coal mines from fire and other hazards.

Regulations Governing the Operation of Mines and Quarries

Rules are set forth applicable to other mining operations similar to those for coal mines.

OIL AND NATURAL GAS ACT

Oil and Natural Gas Regulations

Drilling practices are controlled with a view to providing protection to life and property, to prevent and extinguish fires, to prevent and control blowing out of wells, and to prevent the pollution of fresh water supplies.

Schedule of Fees

Prospecting licence or renewal thereof for an individual	\$ 10.00
Fee for prospecting licence, or renewal thereof, for a company shall be based on its authorized capital, as follows:	
(a) Where the authorized capital does not exceed \$50,000 or 50,000 shares of no par value	25.00
(b) Where the authorized capital exceeds \$50,000 or 50,000 shares of no par value but does not exceed \$1,000,000 or 1,000,000 shares of no par value	50.00
(c) Where the authorized capital exceeds \$1,000,000 or 1,000,000 shares of no par value	100.00
Substituted licence if original prospecting licence is accidentally destroyed or lost	0.50
Metal tags, per claim	0.25
Recording each claim staked out by a licensee on his own licence or for another licensee	2.00

Certificates of record of claim	\$ 1.00
Receiving and filing a dispute, per claim	10.00
Certified copies of any report of inspection of a mining claim, mining licence or mining lease, per page	0.50
Copies or certified copies of any other document or record obtained from recorder per page	0.50
Filing appeal from Recorder's decision	10.00
Certificate of work for mining claim, mining licence, or mining lease	no charge
Payment in lieu of work on mining claim, mining licence and mining lease, per day of work not performed	5.00
Renewing a claim, per year	1.00
Mining licence per acre or fraction thereof, per year	0.25
Mining lease (for coal) per acre or fraction thereof, per year	0.25
Mining lease (minerals other than coal) per acre or fraction thereof, per year	1.00
Filing transfer or agreement to sell or transfer the whole or part of a mining claim, mining licence or mining lease, power of attorney, revocation of power of attorney, or any other instrument affecting any recorded claim, licence, or lease or other recorded right or interest, per claim, licence or lease	2.00
For miscellaneous services not listed above, such amounts as may be fixed by the Minister in each case.	

Principal Officials

DEPARTMENT OF NATURAL RESOURCES

Minister
 Deputy Minister
 Assistant Deputy Minister (Mines)

Mines Branch

Director of Mines
 Chief, Mineral Lands Division
 Chief, Geological Division
 Chief, Mine Assessment Division
 Chief, Mine Inspection and Engineering Division

Inquiries for detailed information on and requests for copies of the various acts and regulations referred to above may be directed to the Assistant Deputy Minister (Mines), Department of Natural Resources, Fredericton, New Brunswick.

NOVA SCOTIA

As one of the founding provinces of Canada Nova Scotia maintained full control over its mineral resources under provisions of section 109 of the British North America Act at the time of Confederation in 1867.

The first general mining act was enacted in 1885. Previous to that year, mines were operated under ordinances, rules, and decrees which purported to control the operation of mines within the province but could not be regarded as general mining law.

All minerals in Nova Scotia have been reserved to the Crown in the right of the province of Nova Scotia with the exception of limestone, gypsum and building materials, which are the property of the owners of the surface rights unless otherwise decreed by order in council. The Governor in Council may in the public interest declare any non-living substance except gypsum a mineral.

Crown-owned minerals are disposed of through a leasing system. Location of claims is made on a grid system which is based on the National Topographic System.

There are no mineral rights held in fee simple. A record of all licensees and lessees is maintained by the Department of Mines.

DEPARTMENT OF MINES

Formal control over minerals was first established by the government of the province under the direction of a Chief Gold Commissioner in 1861.

The department is charged with the responsibility of the disposition of mineral rights on all private, municipal and Crown lands, the collection of royalties and rentals, and the control of mining and drilling operations in the province.

The Governor in Council is authorized by the Mines Act to assist the mineral industry in the province by carrying out development work in mines.

Authority is given to procure power for the mining industry on the most economical basis.

Mining machinery and equipment may be obtained by the department and used to assist mining operators. Diamond drills may be purchased and used to test geological structures and to assist prospectors and mine operators in the development of their property.

The Governor in Council may appoint an Advisory Board on Mineral Development to advise the department on matters affecting the development of mining in the province.

The department is concerned with mapping the geology, compiling hydrological data and developing groundwater resources in the province.

An open file on basic data on mineral occurrences is maintained by the department in Halifax where the material may be studied. The department also has many unpublished reports on mineral occurrences. Copies of reports may be obtained for the cost of reproduction. A drill-core library is maintained at the Mines Office in Stellarton, Nova Scotia.

The acts and regulations which are administered by the department are as follows:

	<i>Page</i>
Mines Act, R.S.N.S. 1954, Ch. 179	145, 150, 151, 153
Petroleum and Natural Gas Act, R.S.N.S. 1954, Ch. 215 ...	148, 149, 151, 152, 153
Regulations Governing the Search for and Production of Petro-	
leum and Natural Gas, 1956 and amendments, 1965	149, 151, 152
Gypsum Mining Income Tax Act, 1954	151
Coal Mines Regulations Act, R.S.N.S. 1954, Ch. 35	151
Metalliferous Mines and Quarries Regulations Act, R.S.N.S. 1954, Ch. 176	152
Regulations Governing the Use of Electricity in Mines, 1965	152
Well Drilling Act, 1964	152

The following acts also directly affect the mineral industry within the province.

Lands and Forests Act, R.S.N.S. 1954, Ch. 145	145
Iron and Steel Manufacturing Encouragement Act, R.S.N.S. 1954, Ch. 137	151
Mineral Prospecting Companies Act, R.S.N.S. 1954, Ch. 177	152
Water Authority Act, 1964	152
Securities Act, 1942, amended, 1959	152

Disposition of Mineral Rights

LANDS AND FORESTS ACT

All minerals, except limestone, gypsum and building materials, have been reserved to the Crown. Limestone, gypsum and building materials are the property of the owners of the surface rights, unless declared otherwise by order in council.

In a deposit containing both gypsum and anhydrite, acquisition of the mineral rights to the anhydrite and its mining must be done under the Mines Act.

MINES ACT

The act applies to all minerals including limestone and building materials that have been declared to be minerals by order in council.

Mineral rights to Crown-owned minerals are granted only under prospecting licence during the prospecting and development stage. A lease must be obtained before actual mining commences.

Boundaries of Mining Lands

The federal Department of Energy, Mines and Resources uses a standardized system of issuing topographical and geological maps of Canada. Each standard sheet of the National Topographic Series is bounded by 30 minutes of longitude and 15 minutes of latitude.

In 1940 the Nova Scotia Department of Mines adopted this system for all maps and plans pertaining to mineral rights and mines, and all prospecting licences and leases for minerals including oil and natural gas have been issued on this system since that date.

National Topographic Maps on a scale of 1 to 50,000 (1¼ inches equals 1 mile) are the basis for determining the boundaries of licences and leases. They are divided into quarter sheets which are termed reference maps. Each reference map is divided into 108 mining tracts having an area of approximately one square mile. Each mining tract contains sixteen 40-acre claims.

The Department of Mines maintains reference maps covering the province. The maps show mining tracts designated by a number and claims designated by a letter.

These maps are available for one dollar per copy. The department will provide free of charge a sketch map showing tracts and claims held if the map area does not exceed ten square miles.

The Minister may require the survey of an area under licence.

Prospecting Licence

A prospecting licence entitles the holder to search for those minerals specified in the licence on the area to which the licence applies. The holder may mine the specified minerals for test purposes but not commercially. Application for a licence may be made by anyone.

One application may cover from one to sixteen contiguous 40-acre claims. The claims must not run more than four north-south or four east-west, and no claim may join its neighbour by corner only. A licence will not be granted for less than a full claim except where areas are already held under old-style lease within the boundaries of a claim, when a licence may be issued for the remainder.

The applicant must state the claims applied for, using the letter designating each claim, the number of each mining tract in which the claims lie and the specific mineral sought.

There is no limitation on the number of applications that may be filed by one applicant, but the number of licences that may be granted is at the discretion of the Minister. Claims may be applied for on behalf of a company by any authorized agent.

The term of a licence is one year. It is renewable each year for five consecutive years if work requirements have been fulfilled and may be renewed subsequently at the discretion of the Minister provided that work requirements are fulfilled.

The work required to be performed is 40 man-days per licence year for each 40-acre claim held. The required work must be recorded prior to the expiration of the licence year. Failure to perform or report the required statutory work in the time allowed results in automatic forfeiture of the prospecting licence unless a fee of 50¢ an acre is

paid in lieu of work. Expenditures on any type of technical work or on mechanized prospecting to an amount of \$200 is considered as the equivalent of 40 man-days of work. Payment in lieu of work is accepted at the discretion of the Minister.

The statutory work must consist of such operations as stripping, trenching, shaft sinking, driving tunnels, and like procedures. Expenditures on construction of roads, cabins, and headframes, on installation of mining equipment, on surveys, on laboratory work and on reports by qualified persons may be accepted in lieu of the prescribed work.

Contiguous claims may be grouped for statutory work requirements. The fee for a prospecting licence or renewal is \$10.

Mining Lease

A lease entitles the holder to mine a specified mineral, and other minerals associated with the specified mineral on the area to which the lease applies. It is usually granted only to a person who has held the area under licence for at least one year previously.

One lease may cover from one to sixteen contiguous claims, of which no more than four may run north-south or east-west. The term of a lease is 20 years, with a right to subsequent renewals if work requirements have been fulfilled.

A lessee is required to carry out in each lease year 600 feet of lateral development work or its equivalent in addition to any stoping or mining of ore. One foot of shaft sinking is equivalent to two feet of lateral development. Twenty feet of diamond drilling, when interpretation of results is included in the report, is considered equal to one foot of lateral development. Expenditures on surface facilities, machinery and equipment, and on mining operations may be accepted. All leases held by one person may be grouped for work requirements.

The fee for a mining lease is \$20 per claim covered by the application. An annual rental of 50¢ per acre is payable by lease holders.

If the Deputy Minister reports to the Minister that mineral development in any area where public funds have been spent to assist the mineral industry is being hindered by the holding of areas under licence or lease, the Minister may request the holders to name a price at which they will sell. If agreement cannot be reached, the Governor in Council may dispose of the lands in question by offering them for sale by public auction or by vesting them either in the Crown or in any person developing or preparing to develop the district. Compensation will be paid the former holders either in the form of a fixed sum or as royalty on mineral produced from the lands involved.

If any person mining gold or gold and silver represents to the Minister that certain areas held under license or lease near his operation are not being mined for the production of gold or silver, that such areas are in the aggregate too small to constitute a profitable mine, that they could be profitably mined in conjunction with his operation, that the holders refuse to sell at reasonable price, and that they are thereby retarding mining operations, the Minister may investigate the situation and may order the holders of such areas to begin mining operations within a specified term or to offer the areas for sale at public auction within two months of such default.

Closure of Tract

The Minister may withdraw from application for licence or lease any tract or tracts of ground for special investigation.

Right of Entry

No licensee may enter upon or prospect any private lands included in his licence except by consent of the occupant or by special licence from the Minister. The Minister may lay down the conditions of such licence and may also determine the compensation payable to the occupant, and his decisions in this regard are final.

Crown lands, whether ungranted or under timber licence or lease, may be entered upon and prospected only by permission of the Minister of Lands and Forests.

No licensee or lessee may enter upon or use for mining purposes any private lands until he has obtained the right to do so by agreement with the occupant or as provided by the act. If a lessee needs land for legitimate mining purposes, and represents to the Minister that he has been unable to come to an agreement with the owner or occupant of such land, the Minister may appoint a time and place for a hearing, and the lessee must notify the owner or occupant of the land to that effect.

The Minister may, following the hearing, make such order with respect to the use desired as he deems just, and may fix the amount of compensation payable or refer the same to arbitration.

The provisions set forth above also apply where a lessee requires access to a submarine deposit by means of subterranean passage through lands owned or occupied by another. The acquisition of such subterranean rights will involve responsibility for damage to persons or property caused thereby, over and above the initial compensation for use of the land.

PETROLEUM AND NATURAL GAS ACT

A licence is required to search for petroleum and natural gas, and a lease gives the right to produce petroleum and natural gas.

The areas granted under licence or lease are based on the National Topographical Series of maps.

Licences

The basic unit used for the issue of licences for petroleum and natural gas is the Reservation, consisting of 18 mining tracts (18 square miles). Each licence may contain from one to 24 Reservations.

An applicant may not hold more than two licences at one time except in submarine areas.

The term of a licence covering a land area is for 3 years, renewable for a fourth and fifth year.

The term of a licence in submarine areas, type (b),* where open water extends more than 25 miles in two directions at right angles to each other, is for 3 years and is renewable for subsequent periods of one year each. The term of a licence in other submarine areas, type (c),* is for 3 years renewable for two additional periods of 2 years each.

The annual rental fee is \$36 for each Reservation for the initial period, but the renewals bear an annual rental of \$72 per Reservation.

The licensee holding a licence covering a land area must expend on exploratory work on each mining tract not less than \$32 the first year, \$51 the second year, \$77

* Section 3 (2) (b) and (c) of Regs. amended May 19, 1965.

the third year, \$128 the fourth year and \$160 the fifth year. Any excess of expenditures over the minimum annual requirements may be applied to subsequent years.

Licensees holding a type (b) submarine licence must expend on exploratory work on each mining tract not less than \$48 during the first 3 years, \$96 during the second 3 years, \$128 during the seventh year, \$192 during the eighth year, and \$320 during each ensuing year.

Licensees holding a type (c) submarine licence must expend on exploratory work on each mining tract not less than \$48 during the first 3 years, \$96 during the second 2 years, \$128 during the third 2 years, and should the licence be renewed \$192 during the eighth year, and \$320 during each ensuing year.

A bond must be posted with the Minister at the beginning of each year to guarantee that the required expenditures will be made.

A licensee holding a licence covering a land area may group the area in two licences for work and expenditures.

A licensee holding submarine licences of types (b) or (c) may group for exploratory work an area which could be included within ten licences of maximum area if situated within a circle of 100 mile radius.

Leases

A licensee who has complied with the regulations may at any time convert up to a maximum of 50 per cent of his licence into leases in a checkerboard pattern. The balance of the licenced area constitutes a Crown Reserve.

The term of a lease is for 20 years, and is renewable for a further 20 years.

Leases consist of mining tracts or quarter tracts, and the maximum area in one lease is 21 mining tracts. The length of a leased area may not exceed three times its breadth.

The annual rental fee is \$640 per mining tract.

If drilling proves a leased area to be a natural gas field only, the annual rental may be reduced to \$320 per mining tract. During the period when there is no market for the gas, the annual rental may be further reduced to \$160 per mining tract. However, if subsequent drilling discovers petroleum, the lease reverts to its original status.

For work requirements, leases on land areas up to a maximum area of 42 mining tracts may be grouped if the leases are contiguous and within a 10-mile radius.

For work requirements on submarine leases, the lessee may group an area not exceeding 420 mining tracts if within a circle of 24-mile radius.

The Minister may approve a deep test well which will be given credit for assessment work at twice its cost. Such a well must be more than 12 miles from any other deep test well.

The lessee is required to commence and continue the drilling of a well within 6 months of being requested so to do by the Minister.

Petroleum and Natural Gas Conservation

PETROLEUM AND NATURAL GAS ACT

Regulations Governing the Search for and Production of Petroleum and Natural Gas

An operator is required to conduct all operations in accordance with good oil-field practice.

A well must be drilled within 165 feet of the centre of a mining claim (40 acres). A well may not be within 250 feet of a right-of-way or installation.

Wells must not be allowed to flow uncontrolled. Natural gas when found must be confined until it can be utilized without waste.

Where a well may penetrate a coal seam, the operator must obtain approval of the Minister on drilling practices to be followed.

Samples and cores must be taken and forwarded to the Minister within 60 days after the completion of drilling.

Information furnished by a licensee or lessee on a wildcat well is kept confidential for one year after the abandonment of the well. Information on other wells is kept confidential for 30 days after the well is completed except that information supplied by a licensee or lessee whose licence or lease has been forfeited may be released at any time.

Information respecting other operations is kept confidential until one year after the termination of the last renewal of the licence.

Mineral Taxation and Royalties

MINES ACT

Royalties are payable on Crown-owned minerals as follows:

Coal: 12½¢ per long ton.

Gold or silver: 2 per cent of the net returns received on gold or silver concentrates shipped from the mine; but if gold or silver bullion is produced in the province, one-half of the royalty is refunded.

Iron, copper, lead, or zinc contained in complex ores from which two or more separate concentrates are made in the province or contained in ore smelted or refined in the province, one per cent of the net value of the metal paid or credited in the returns from the smelter as of each settlement date.

Iron, copper, lead or zinc contained in ore from which only one concentrate is made in the province, two per cent of the net value of the metal paid or credited in smelter returns as of each settlement date.

Barytes: 15¢ per long ton with rebate of 5¢ per ton when processed to 200 mesh or finer.

Diatomite: 15¢ per short ton.

Dolomite and limestone: 2 per cent of the net value except when used for agricultural purposes. When used for manufacturing purposes in Nova Scotia, 50 per cent of the royalty is refundable.

Anhydrite: 6¢ per short ton except when taxed as gypsum bearing substance.

Salt: 10¢ per short ton.

Silica: 5¢ per short ton, except sand blasting sand, high grade silica or other derivatives of sand and gravel that are not building materials which are levied at the rate of 2 per cent of the net value at mine or quarry.

On all other minerals the royalty, determined by the Governor in Council, is generally of the order of 2 per cent of the net value of the product, one-half of which is refundable if processing is carried out within the province.

The Minister may by agreement substitute for the royalties above set forth, except in the case of coal, and for a period not exceeding twenty years, an annual royalty on the profits in excess of \$10,000 in any calendar years as follows: over \$10,000 up to

\$1,000,000, 3 per cent; over \$1,000,000 up to \$5,000,000, 5 per cent; over \$5,000,000 up to \$10,000,000, 6 per cent; and on the excess above \$10,000,000, 1 per cent for each additional \$5,000, 000.

The Minister, may, where he deems it in the public interest in order to encourage the establishment of a mining industry other than coal mining, remit the payment of royalty either on production or on profits for a period not exceeding ten years.

GYPSUM MINING INCOME TAX ACT

A tax is levied on income derived from gypsum mining operations at the rate of 33½ per cent or as an option at the rate of 6¢ per short ton. In practice, the 6 cents per short ton option has been taken by operating companies.

The taxable income is defined as the gross receipts from mining operations less working expenses and certain allowances.

PETROLEUM AND NATURAL GAS ACT

Regulations Governing the Search for and Production of Petroleum and Natural Gas

The royalty on petroleum varies from 5 per cent on production of less than 600 barrels per month to 12½ per cent on production above 4,050 barrels per month.

The royalty on natural gas is 10 per cent of the well-head value, with a minimum of one cent per thousand cubic feet.

Bounties and Subsidies

There are no bounties or subsidies paid directly on the production of minerals.

IRON AND STEEL MANUFACTURING ENCOURAGEMENT ACT

For the encouragement of the making of iron and steel from native ores the Governor in Council may refund the whole or any part of the royalty paid on coal used within the province in the making of iron or steel to any company which erects within the province plant, buildings and machinery capable of a daily output of not less than 200 tons, where such iron or steel is made from ore of which at least 25 per cent is mined in Nova Scotia.

Operating and Safety Rules

MINES ACT

Mills and Millings

A licence must be obtained to operate any mill to beneficiate any metal bearing or mineral bearing material, except coal.

COAL MINES REGULATIONS ACT

This act provides for safe working conditions in coal mines. It covers appointments, qualifications and duties of mine officials and workmen, and certificates of competency.

Rules concerning hoisting, fire protection, use of electricity, handling and use of explosives, mine inspections, first-aid requirements, and sanitation are set forth.

METALLIFEROUS MINES AND QUARRIES REGULATIONS ACT

The act provides for safe working of metalliferous mines and quarries, and metallurgical plants and mills.

The regulations cover surface arrangements at mines, use of electricity, inspections, employment, fire-protection, dry houses and sanitation, emergency stations and first aid, ventilation, handling and care of explosives, hoisting, haulage, protection for machinery, and handling water underground.

PETROLEUM AND NATURAL GAS ACT

Regulations Governing the Search for and Production of Petroleum and Natural Gas

An operator must notify the Minister before commencing to drill any well. An annual fee is charged for every rig operated.

Operations must be conducted in accordance with good oil-field practice. Equipment must be adequate for its purpose. The use of blowout control equipment is obligatory.

On abandonment, holes must be plugged and the surface returned to its original condition. Adequate fire walls must be constructed around oil storage tanks. Special regulations apply in coal basins. A daily drilling progress report is required.

WELL DRILLING ACT

All well drillers in the province must be licenced by the Department of Mines.

Work must be in accord with regulations under the act which prescribe standards of workmanship and well location.

Other Acts

MINERAL PROSPECTING COMPANIES ACT

The act permits the incorporation in the province under the Nova Scotia Companies Act of companies whose share capital may not exceed \$35,000 and whose sole object is to hold prospecting licences for prospecting purposes as an investment. Such a company is not required to pay the usual annual fees of corporations.

WATER AUTHORITY ACT

Under the act all waters in the province are the property of the Crown. A permit is required for the use of water by a mining company. Control over the discharge of mine or processing water is exercised by the Water Authority.

SECURITIES ACT

Two of the directors of any mining company registered in the province must be acceptable to the Minister of Mines.

Work performed on a property must be under the direction of a supervisor acceptable to the Minister of Mines.

No new properties may be acquired by a company unless supported by a report by a professional person acceptable to the Minister of Mines and approved by the Registrar.

Schedule of Fees

MINES ACT

Prospecting licence or renewal	\$ 10.00
Application for lease, for every 40-acre claim or fraction thereof	20.00
Yearly rental, per acre	0.50
Every search of title of any lease or licence or application for lease or licence or of title of any kind relating thereto when made in person	0.50
A like search or request by mail	1.00
Every copy of any lease or licence or of any paper affecting title, per folio	0.20
Every other certificate under the hand and seal of the Minister	3.00
Registration of any document affecting the title of any lease or licence for each lease or licence affected by such document	2.00
Every copy of any plan, such reasonable sums as the Minister approves, not less than	1.00
Consent of Minister to the assignment, transfer, or mortgage of any lease or interest therein or for ratification of any assignment, transfer, mortgage, deed or other instrument affecting any lease	3.00

PETROLEUM AND NATURAL GAS ACT

Annual rental fee for each Reservation or fraction thereof under licence (three-year term)	\$ 36.00
Annual rental fee for renewal of licence	72.00
Annual lease rental for petroleum per mining tract	640.00
Annual lease rental for natural gas per mining tract	320.00

Principal Officials

DEPARTMENT OF MINES

- Minister
- Deputy Minister
- Chief Mining Engineer
- Chief Inspector of Mines
- Chief Geologist
- Financial Executive Officer
- Registrar of Mining Rights

Inquiries for detailed information on and requests for copies of the various acts and regulations referred to above may be directed to the Deputy Minister, Department of Mines, Halifax, Nova Scotia.

PRINCE EDWARD ISLAND

Control over mineral rights was retained by the province at the time it joined Confederation in 1873. Crown-owned minerals are disposed through a leasing system.

An Act to Encourage the Discovery and Development of Oil and Gas passed in 1920 was the first to proclaim all minerals in the province to be vested in the Crown. The same act declared rights to minerals to be a property separate from surface rights.

Mineral substances, other than those defined as minerals, are the property of owners of the surface rights.

DEPARTMENT OF INDUSTRY AND NATURAL RESOURCES

The department was formed in 1947 under the Public Departments Act.

The department is responsible for the disposition of mineral rights, the levying of royalties and rentals, and control over operating and safety practices.

The department is responsible for the administration of the following acts and regulations:

	<i>Page</i>
Oil, Natural Gas and Minerals Act, 1957, ch. 24	154, 158
(a) Regulations Governing the Search For and Production of Oil and Gas, 1958	155, 157, 158
(b) Regulations re Geophysical Work, 1957	156, 158
Beaches Protection Act, 1963, ch. 2	157

The Oils and Minerals Act, R.S. P.E.I. 1951, ch 103 and amendments were repealed and replaced by the Oil, Natural Gas and Minerals Act, 1957, ch. 24.

Disposition of Mineral Rights

OIL, NATURAL GAS AND MINERALS ACT

Minerals to which the act applies are defined as all naturally occurring minerals or

any combination of them with themselves or with any other element including oil and gas, coal, salt, sulphur and potash.

Oil is defined as crude oil and all other hydrocarbons which can be recovered in liquid form through a well. Gas is defined as natural gas and all hydrocarbons not defined as oil.

All minerals within or under the province are vested in the Crown and are a property independent of the soil which is above it.

All oil and gas within or under the lands and territorial waters of the province was and is vested in the Crown in the right of the province.

A person may prospect for or mine minerals or undertake to drill or operate a well only if he is the holder of a licence or lease which authorizes him to do so.

Licences to prospect for oil and gas, and leases for the production of oil and gas may be granted by the Lieutenant-Governor-in-Council. Any other mine, mineral, valuable substance or deposit discovered during drilling for oil and gas belongs to the Crown.

Licences to prospect for and leases to mine any mineral other than oil and gas may be granted by the Lieutenant-Governor-in-Council on terms prescribed by regulations. Licensees and lessees for other minerals may prospect for and mine other minerals on areas covered by licences or leases for oil and gas. Oil and gas, discovered by a licensee or lessee for other minerals, belongs to the holder of the licence or lease for oil and gas covering the discovery.

The holder of a valid licence to prospect for oil and gas has the right to obtain a lease at any time on not more than 50 per cent of the area covered by the licence.

A lease of Crown oil and gas rights is for a term of 21 years, and is renewable for further terms of 10 years if the area is capable of producing oil or gas in commercial quantities from at least one well on the leased area.

A licence or lease may not be assigned, transferred or sublet without the consent of the Lieutenant-Governor-in-Council.

The Lieutenant-Governor-in-Council is empowered to make regulations governing the procedure for applying for licences and leases; prescribing the terms and conditions upon which licences and leases may be granted; requiring performance bonds; prescribing permits in respect of each well drilled or operated; setting fees, rentals and royalties; providing for the disposal of Crown reserve rights; geophysical and subsurface geological exploration; required oil and gas conservation practices; drilling and safety practices; and licensing and leasing of any minerals.

A licensee or lessee may enter and use Crown lands only on the terms and conditions prescribed by the Minister.

A licensee or lessee may enter and use private lands only by agreement with the owner, or failing agreement, by obtaining a special permit from the Minister.

The Minister after hearing the parties may grant a special permit upon such terms and conditions as he may think proper and may determine the amount of any compensation to be paid to the owner. Such a decision of the Minister is final.

The Minister may direct that any award of damages shall be determined by arbitration. The owner and the licensee or lessee may then appoint one arbitrator each. A third arbitrator is selected by the first two, or failing agreement, by a Judge of the Supreme Court. The award of any two arbitrators is final.

Regulations Governing the Search for and Production of Oil and Gas

A licence, upon application to the Lieutenant-Governor-in-Council, may be issued to search for oil and gas for a period of one year. A licence is renewable not more than

four times for a period of one year each, but the licence period may be extended at the discretion of the Minister.

The total mineral area controlled by the province has been divided into 43 licence areas. Of these, 12 are located on the land area of the province, 10 are on Northumberland Strait on the southern border of the province, and 21 are on the Gulf of St. Lawrence on the northern border. The licence areas are irregular in shape and have areas ranging from 82,800 acres to 194,000 acres. A plan showing the licence areas is maintained by the department.

A licence may cover a maximum of one licence area and a minimum of one-half a licence area. The number of licences which may be held by one person is not limited. An application for a licence must be accompanied by a statement of the extent, character, and estimated cost of the proposed exploration program.

The annual rental fee for each half licence area for the first three years is \$180 and is \$360 for each of the fourth and fifth years.

A minimum expenditure per acre of the licence area is required on exploratory work of 5¢ in the first year, 8¢ in the second, 12¢ in the third, 20¢ in the fourth and 25¢ in fifth. Expenditures in excess of requirements may be carried forward. A performance bond is required.

The work required for a licenced area may include geophysical work and at the discretion of the Minister other exploratory work which is related to exploration of the licenced area. A licensee must submit details of a program of exploratory work before its commencement, and a report containing specified information upon its completion. A maximum of three licenced areas may be grouped for exploratory work if they are contiguous or situated within a 15-mile radius. The time for the performance of exploratory work for expenditures thereon and for filing reports may be extended at the discretion of the Minister.

A licensee who has complied with requirements is entitled upon application to the Lieutenant-Governor-in-Council within the term of a licence to obtain a lease on not more than 50 per cent of the area covered by the licence.

The maximum area covered by a lease may not exceed 24 grid units, and the minimum area not less than one-quarter of a grid unit. A grid unit is bounded by two consecutive minutes of latitude and by two consecutive minutes of longitude and contains approximately 583 acres.

A leased area must be in the form of a rectangle, the length of which may not be greater than three times the width.

Leased areas may form a checkerboard pattern or must be apart from each other a distance of not less than one grid unit.

The term of a lease is 21 years and is renewable for further terms of 10 years if the area is capable of producing oil and gas in commercial quantities from at least one well on the leased area. Should production not be obtained from a leased area within ten years from the date of commencement of the lease the Minister may terminate the lease. If production of oil or gas in commercial quantities is not being taken from a leased area, the Minister may extend the term of the lease at his discretion upon application by the lessee.

The annual lease rental is one dollar per acre, and may be refunded if the royalty paid is greater than the rental. If an area is satisfactorily delineated as a gas field, the annual rental is 50¢ per acre. The Minister may reduce the annual rental on a gas field to 25¢ while a market for gas is not available.

The lessee must commence drilling a well within one year of the date of commencement of his lease. The date of a lease is July 2 of the year in which application for the lease was accepted.

The lessee must commence the drilling of a second well within one year of the completion or abandonment of the first well. The Minister may grant an extension of time for the fulfilment of drilling obligations.

Two leases which are contiguous or lie within a 15-mile radius may be grouped for work obligations.

When commercial production is obtained on a leased area the lessee must immediately commence development of the productive area.

The portion of a licence not converted to a lease constitutes a Crown reserve. The Minister may dispose of oil and gas rights on Crown reserves by tender under such conditions as he may prescribe.

BEACHES PROTECTION ACT

Beach areas, including land lying under tidal waters, may be designated as protected beaches, whether the areas are privately owned or are Crown lands.

Sand, gravel or stone may not be removed from a protected beach without the permission of the Minister.

Oil and Gas Conservation

OIL, NATURAL GAS AND MINERALS ACT

Waste includes the inefficient use of reservoir energy, drilling and spacing practices which reduce the amount of oil and gas ultimately recoverable, the inefficient storage of oil or gas, the production of oil and gas in excess of market demand, and operating practices which cause unnecessary surface losses of oil and gas.

The act authorizes the Lieutenant-Governor-in-Council to make regulations governing the location of wells on any licence or lease, methods and equipment employed in drilling operations, safeguards and methods to be applied in drilling operations and in the management and operation of wells for the conservation of oil and gas.

Regulations Governing the Search for and Production of Oil and Gas

A licensee or lessee is required to conduct all operations in accordance with good oil-field practice. Equipment, casing, and tubing must be in good condition and adequate for their purpose.

Wells must be cased through unconsolidated deposits. The use of blowout preventers is obligatory. A well may not be allowed to flow uncontrolled.

Where any well is a menace to oil or gas or water bearing formations, the Minister may take any necessary remedial steps. Measures must be taken to prevent the injurious access of water or petroleum into a formation. Natural gas must be confined to its original stratum until it be produced and utilized without waste.

Deviation tests must be made at intervals not greater than 500 feet during the drilling of a well.

Non-coring samples must be taken at 10-foot intervals, and forwarded to the

department. Potential producing formations must be cored, and the core forwarded to the department.

Information, on a wildcat well is kept confidential for one year after completion, suspension or abandonment of the well. On other wells information is kept confidential for 30 days.

Mineral Taxation and Royalties

OIL, NATURAL GAS AND MINERALS ACT

The maximum royalty payable on oil and gas during the first term of a lease may not exceed one-sixth of the gross recovery from the lease.

Regulations Governing the Search for and Production of Oil and Gas

A royalty is reserved to the Crown of $12\frac{1}{2}$ per cent of the production of oil and gas from each well on a leased area. The royalty is based on the current market value at the well head or the Minister may elect to take in kind the royalty share of oil produced.

Operating and Safety Rules

OIL, NATURAL GAS AND MINERALS ACT

The act applies to wells drilled in the search for oil and gas and to all wells deeper than 500 feet.

No one may prospect for or mine minerals or drill or operate or undertake or commence to drill or operate any well unless he has a licence or lease.

The act empowers the Lieutenant-Governor-in-Council to make regulations governing the registration and licensing of all persons having charge of drilling operations; the methods and the equipment and materials to be employed in drilling operations and in the operation of wells; the safeguards and methods to be applied in drilling operations and in the management and operation of wells; the inspection of drilling and other operations, and all geophysical and geological exploration.

Regulations Governing the Search for and Production of Oil and Gas

A licence for each rig to be operated is required. The licence fee is \$3 per annum. Before drilling a well the licensee or lessee must obtain a well licence and notify the department of his intention to drill. The licence fee is \$35.

All holes must be plugged before abandonment, and the surface restored. A daily report is required while drilling is in progress.

Regulations re Geophysical Work

The regulations apply to all geophysical work done in the province, which includes seismic, gravimetric, magnetic, electrical, geochemical, structure test drilling and any other geophysical method approved by the Minister.

An operator's licence is required before any person may operate geophysical equipment. Detailed rules and requirements for operators are set forth, including the drilling, firing and plugging of shot-holes.

Schedule of Fees

Drilling rig licence	\$ 3.00
Well licence	35.00

Principal Officials

DEPARTMENT OF INDUSTRY AND NATURAL RESOURCES

Minister

Deputy Minister

Geological Officer and Chief Officer

Inquiries for detailed information on and requests for copies of the acts and regulations referred to above may be directed to the Deputy Minister, Department of Industry and Natural Resources, Charlottetown, Prince Edward Island.

NEWFOUNDLAND

Newfoundland united with Canada in 1949. Control over the natural resources belonging to Newfoundland at the time of union were vested in the province by section 37 of the Terms of Union of Newfoundland with Canada. In this chapter the island portion of the province is referred to as Newfoundland and the mainland portion as Labrador.

The first mining law of 1860 empowered the Governor of the Colony of Newfoundland to issue leases for terms of 99 years and grants in fee simple pursuant thereto.

Prior to 1930, Crown lands were administered under Chapter 129 of the Consolidated Statutes of 1872. Original discoveries were marked by a stake placed at the centre of the discovery. A mining claim surrounding the discovery was then laid out in the form of a rectangle of one mile by one-half mile, having the greater length parallel to the strike of the discovery. The Minister of Agriculture and Mines developed a plan of the area having claims laid out in the form of rectangles one mile by one-half mile parallel to the original discovery location. These claims were numbered and any interested party could apply to the Minister for a one-year licence for a claim. Applications for a 99-year lease could be made before the expiry of the one-year licence. Upon the expenditure of the sum of \$6,000 within the first five years of the 99-year lease, a grant in fee simple would be issued.

A Crown Lands Act was passed in 1930 under which grants of mineral rights were available under 99-year leases convertible to fee simple grants.

Mineral rights on approximately 4,300 square miles or 2.7 per cent of the total lands within the province are presently held in fee simple.

The Crown Lands (Mines and Quarries) Act was passed in 1951. It provides for the disposition of mineral rights under a leasing system. This act does not affect mineral rights held in fee simple or otherwise by way of earlier acts. Mineral rights are disposed under the act separately from surface rights.

Mineral rights are also disposed by way of individual agreements with the government of the province.

DEPARTMENT OF MINES, AGRICULTURE AND RESOURCES

MINES BRANCH

The Department of Mines, Agriculture and Resources Act was passed in 1961. The Mines Branch of the department was originally established in 1952. The Branch is under the direction of the Deputy Minister of Mines.

The Mines Branch is concerned with the control, management and supervision of all matters relating to mines, minerals, quarries, geological and associated surveys, mining taxation, and the administration of Crown lands.

Titles and grants are registered by the Mines Branch.

The acts and regulations which are of general application and which are administered by the Mines Branch are as follows:

	<i>Page</i>
Crown Lands (Mines and Quarries) Act, 1961	162, 172, 173
Labrador Lands (Reservation) Act, R.S.N. 1952, Ch. 176	165
Petroleum and Natural Gas Act, 1965	165
Undeveloped Mineral Areas Act, R.S.N. 1952, Ch. 185	166
Mining Tax Act, R.S.N. 1952, Ch. 43	171
Mineral Lands Taxation Act, 1964	172
Crown Royalties Act, R.S.N. 1952, Ch. 182	172
Minerals and Options Tax Act, R.S.N. 1952, Ch. 42	Not summarized
Regulations of Mines Act, R.S.N. 1952, Ch. 178.	

The Mines (Safety of Workmen) Regulations, 1957 and amendments 172

Mineral rights, otherwise disposable under the Crown Lands (Mines and Quarries) Act, may be withdrawn from the operation of that act, and the provincial government may make private agreements for exploration and development of mineral resources with qualified and competent companies.

The acts currently in effect which have authorized such private agreements and which are administered by the Mines Branch are as follows:

Labrador Mining and Exploration Company Limited Act, 1938 and amendments	166
Parsons Pond Oil Land Vesting Act, 1951	167
Government—Newfoundland and Labrador Corporation Act, 1951 and amendments	167
Government—British Newfoundland Corporation Limited—N.M. Rothschild and Sons (Confirmation of Agreement) Act, 1953 and amendments	167
Government—British Newfoundland Exploration Limited (Authorization of Agreement) Act, 1957 and amendments	168
Nalco-Javelin (Mineral Lands) Act, 1957 and amendments	168
Nalco (Partition Agreement) Act, 1964	168
Government—Javelin Taxation (Confirmation of Agreement) Act, 1959 and amendments	168
Government—A.N.D. Company Limited and American Smelting and Refining Company (Authorization of Agreement) Act, 1959 and amendments	168
Advocate Mines Limited Act, 1959 and amendments	169
Government—The Flintkote Company—Atlantic Gypsum Limited (Authorization of Agreement) Act, 1960 and amendments	169

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O'Brien Gold Mines, Limited (Confirmation of Agreement) Act, 1963 and amendments	169
Leitch Gold Mines Limited (Agreement) Act, 1964	170
Grandroy Mines Limited (Agreement) Act, 1964	170
M. James Boylen (Agreement) Act, 1964	170
Mokta (Canada) Ltée (Agreement) Act, 1965	171

At the end of March, 1965, 37.8 per cent of the total area of the province was held under concession agreement, 13.9 per cent was open for staking under the Crown Lands (Mines and Quarries) Act, and 2.7 per cent was held in fee simple. The remaining 45.6 per cent, most of which is in Labrador, was available for concession agreement or could be thrown open for staking on a day's notice.

A map of Newfoundland and one of Labrador showing the areas available for exploration may be obtained on request from the Mines Branch.

The mineral industry is also directly affected by:

An Act to Encourage the Manufacture of Pulp and Paper in the Colony, 1905...	166
Crown Lands Act, R.S.N. 1954, Ch. 174	166

Disposition of Mineral Rights

CROWN LANDS (MINES AND QUARRIES) ACT

Minerals are defined as any naturally occurring inorganic substance, not including quarry materials, coal, oil, natural gas or salt. Quarry materials are limestone, granite, slate, marble, gypsum, peat, marl, clay, sand, gravel, any building stone and volcanic ash.

Rights to minerals may be acquired through staking. Rights to quarry materials may be obtained by quarry permits and leases. Rights to coal and salt may be obtained under boring permits and leases. Rights to oil and natural gas may be obtained under the Petroleum and Natural Gas Act, 1965.

Miner's Permit

A miner's permit authorizes the holder to search for minerals, coal, oil, natural gas and salt on Crown lands with certain minor exceptions and on private lands only with the consent of the owner.

Any individual over 18 years of age may obtain a permit on payment of a fee of \$10. The fee for a permit to a company incorporated in Newfoundland is \$25 and to other companies incorporated in Canada is \$50.

A permit holder may stake a mining claim by four-post staking in the form of a square having an area of 40 acres. The boundary lines are to run magnetic north-south and east-west. There is no limit to the number of claims which a permit holder may stake. Proxy staking is permitted.

Claims must be recorded within 30 days of staking if they lie in Newfoundland, or within 60 days if in Labrador.

Disputes concerning ownership of claim rights may be adjudicated by a judge or by the Minister.

A certificate of record if applied for on undisputed claims will be issued not earlier than 60 days after date of recording.

To maintain mining claims in good standing a permit holder must perform 50 days of eight man-hours of assessment work per claim in each of the three years following recording.

Assessment work may consist of drilling, geophysical, geological or other surveying, stripping or opening up mines, sinking shafts or other actual mining operations.

Up to nine claims may be grouped for assessment work. However, eighteen may be grouped if the assessment work consists of diamond drilling or underground development. Assessment work in excess of requirements may be carried forward.

Payment in lieu of assessment work may be made at the rate of \$10 for each eight-hour day of work required.

Development Licence

The holder of a certificate of record who has performed the required assessment work may obtain a development licence at any time within 3 years of the date on which the certificate was issued on the mining claims concerned upon payment of a fee of \$10 and an annual rental of 50¢ per acre. A survey of the claims must be filed within 3 months from the date of application.

A development licence may not cover an area greater than 240 acres.

A development licence may be issued without staking of claims if the area lies under the sea or on an island with an area less than 240 acres.

A development licence gives the holder the right to explore for and develop mineral deposits not including deposits of quarry materials, coal, oil, natural gas or salt. The licence may be renewed annually provided the required assessment work is done and a fee of \$10 plus the annual rental of 50¢ per acre paid.

Twenty-five days of assessment work of eight hours each is required annually for each 40 acres of land. The type of assessment required is the same as that required during the first 3-year period of the mining claim.

Mining Lease

The holder of a valid development licence is entitled to a mining lease for all minerals on the licence upon application and payment of a fee of \$5 per acre. The term of the lease may not exceed 50 years.

The mining lease will contain a requirement that mining begin within 2 years and that expenditures be made on exploration and development of the minerals of not less than \$10 per acre within the first 2 years of the lease.

In subsequent years an annual rental of 10¢ per acre is payable, unless an expenditure of \$200 or more has been made in that year on mining work on the lease.

Boring Permit

A boring permit grants for one year the exclusive right to prospect for coal or salt on an area which has been staked in the same manner as for minerals, but the area may not exceed 640 acres.

The holder of the permit must expend in the year not less than \$2 per acre in exploration work on the area.

One renewal for one year may be granted upon payment of a fee of \$100. Work requirements are the same as for the initial permit.

Lease of Coal or Salt

The holder of a valid boring permit may apply for a lease on the whole or part of the area held under permit. The term of the lease is 10 years, with a right of renewal for 10 years. The annual rental is \$5 per acre.

The lease will contain a requirement that not less than \$2 per acre be expended in extracting or attempting to extract coal or salt from the leased area.

Quarry Permit

A quarry permit gives the right to extract limestone, granite, slate, marble, gypsum, peat, marl, clay, sand, gravel, any building stone or volcanic ash on Crown lands. A quarry permit is not limited in area, is good for one year and is not renewable.

A fee of one dollar and a rental of 50¢ per acre is payable on issue of the permit, and a royalty of 5¢ per cubic yard of material removed is levied.

Quarry Lease

The holder of a quarry permit may apply for a lease of Crown-owned quarry materials on the permit area. A survey of the area must be filed before the expiration of the permit.

The area covered by the lease may not exceed 12 acres. The term of the lease may not exceed 25 years. The fee, rental and royalty levied under a lease are usually the same as for a quarry permit.

Beach Sand Permits

Rock, sand, gravel or clay may not be removed from a beach without a permit. No royalty is required.

Right of Entry

The holder of a lease under the act is entitled to a lease on such unoccupied surface Crown lands as are necessary to the conduct of a mining operation.

Exploration for and development and extraction of minerals on lands to which the surface rights are privately owned may be carried out only with the permission of the owner.

A permit holder or any person prospecting for minerals who stakes out a mining claim or an area of land for a boring permit or carries on operations under a development licence, a boring permit, a mining lease or a boring lease or operates a mine or quarry where the surface rights are privately owned must pay compensation to the owner for any injury or damage caused to the surface rights. A judge may determine the amount of compensation in case of dispute.

Reservation of Mineral Rights

The Lieutenant-Governor in Council may withdraw from the operation of the act all Crown minerals, quarry materials, coal, oil, natural gas or salt. When minerals, etcetera are so withdrawn, the Lieutenant-Governor in Council may grant exclusive rights to search and prospect for any of these substances except petroleum and natural gas under such terms and conditions as are agreed upon. Petroleum and natural gas come under the Petroleum and Natural Gas Act.

LABRADOR LANDS (RESERVATION) ACT

This act reserves certain lands to the Crown for disposal outside the provisions of the Crown Lands (Mines and Quarries) Act, and the Crown Lands Act. The act applies to an area of 22,000 square miles in western Labrador.

PETROLEUM AND NATURAL GAS ACT

The act applies to petroleum, including mineral oil and relative hydrocarbon and natural gas but not to coal or bituminous shales.

The act vests in the Crown in right of the province all petroleum located within the jurisdiction of the province, except privately owned petroleum, the rights to which are granted under a currently valid statute of the province. The rights to petroleum with the above noted exception are vested in the Crown without regard to the manner in which the rights were acquired to land under which the petroleum lies whether the land is covered by water or not, including the bed of the sea without limitation.

Petroleum rights will be issued by exploratory licences to search for petroleum generally throughout the province, by permits to prospect and explore for petroleum in a defined area of the province, and by lease for the production of petroleum.

A person may not drill a well without a licence, permit or lease.

The Lieutenant-Governor in Council is authorized to make regulations providing, among other things, for the issue of exploratory licences, permits and leases; fees, rentals and royalties; oil and gas conservation practices to be followed; and for control of drilling operation. No regulations had been made under the act to the end of 1965.

The Lieutenant-Governor in Council may declare any area in the province to be a development area. All or any part of privately owned petroleum within a development area may be declared to be undeveloped petroleum which in the opinion of the Lieutenant-Governor in Council has not been satisfactorily explored, prospected or developed during the immediately preceding three years.

Undeveloped petroleum may be disposed of as if it were Crown petroleum. Royalties received by the Minister from a lease issued by him in respect of undeveloped petroleum are payable to the owner of the petroleum after expenses incurred by the Minister, a management fee, and taxes owing to the Crown have been deducted.

A permittee or lessee has the right to enter either Crown lands or privately owned lands within the area to which the permit or lease applies to carry out an exploration and development program for petroleum. He must, however, compensate for any damage sustained by the owner of any surface, mineral or other rights, or by the holder of a timber licence within the area. If the amount of compensation cannot be settled by private agreement, it will be determined by three arbitrators. One arbitrator each is appointed by the permittee or lessee and the owner. The third arbitrator is appointed by the first two arbitrators, or failing agreement, by the Supreme Court of Newfoundland.

The decision and award of any two of the arbitrators is final and binding on the parties, except that either party may appeal to the Supreme Court of Newfoundland on questions of law only.

A lessee is assured of such surface Crown lands as may be reasonably necessary in the production of petroleum. A lessee may cut and use Crown timber or take and use Crown quarry material which is necessary for the efficient production of petroleum.

Possession of private lands or any rights therein which are reasonably necessary to a lessee for the production of petroleum may be transferred to the lessee at cost by the

Lieutenant-Governor in Council after acquisition by purchase or by expropriation under The Expropriation Act, 1957.

UNDEVELOPED MINERAL AREAS ACT

A mineral area, which in the opinion of the Minister has not been worked or on which sufficient moneys have not been expended in its development during the preceding 10-year period, may be declared to be undeveloped under the act. A mineral area means land in the province without regard to the manner in which title was obtained.

The Minister may on behalf of the owner make an agreement with a third party to prospect, to develop and to mine minerals on an area certified as undeveloped. The term of such an agreement may not exceed 99 years, but is renewable. The consideration paid by the operator to the Minister will be set forth in the agreement.

The Minister may, as an operator, prospect, develop or mine minerals on an undeveloped area.

One half of the consideration paid by the operator to the Minister less expenses incurred by the Minister is payable to the owner of the area.

CROWN LANDS ACT

Surface rights to all Crown lands within the province are disposed under this act.

AN ACT TO ENCOURAGE THE MANUFACTURE OF PULP AND PAPER IN THE COLONY, 1905

The act grants mineral rights in the form of a lease, in addition to granting rights to other natural resources, to the Anglo-Newfoundland Development Company for a period of 99 years, renewable.

The area to which the mineral lease applies is approximately 2,000 square miles located in central Newfoundland.

A royalty is payable at the rate of 5 per cent on net profits from mineral production calculated in accordance with a formula set forth in the act. The royalty is deemed to be levied under the Mining Tax Act.

LABRADOR MINING AND EXPLORATION COMPANY LIMITED ACT, 1938 AND AMENDMENTS

This act permitted the company to survey, examine and develop minerals for a 20-year period on an area of 22,000 square miles in Labrador. The area was required to be reduced by 3,000 square miles after the first year, and 1,200 square miles in each succeeding year until the agreement terminated.

The company had the option to select areas up to 1,000 square miles within the concession area for licences to prospect and explore for minerals. The term of such licences was 40 years.

At any time during the tenure of such licences the company had the right to obtain mining leases for areas not exceeding 8 square miles each, the total of which may not be more than 1,000 square miles. Rental under the leases is 50¢ per acre. The term of the leases is 30 years.

Some of the mining leases issued to this company have been assigned to the Iron Ore Company of Canada.

Royalty under the leases is based on 5 per cent of net profits determined by a formula set out in the agreement.

PARSONS POND OIL LAND VESTING ACT, 1951

Certain mineral rights including petroleum were transferred by this act from unknown prior owners by a lease to the Newfoundland and Labrador Corporation Limited. The area affected by the act amounted to approximately 30 square miles.

GOVERNMENT—NEWFOUNDLAND AND LABRADOR CORPORATION ACT, 1951 AND AMENDMENTS

This act permitted the company known as Nalco to survey, examine and develop natural resources in areas in Newfoundland and Labrador involving 10,000 square miles in Newfoundland and 14,000 square miles in Labrador for a period of 20 years. The corporation was required to surrender 3,000 square miles in Newfoundland and 5,000 square miles in Labrador at the end of the first 5-year period. At the end of each subsequent 5-year period 1,600 square miles was required to be surrendered in Newfoundland and 2,500 square miles in Labrador.

The corporation was required to spend not less than one million dollars on the leased areas in each 5-year period in the investigation of natural resources.

The company was permitted to select parts of unsurrendered areas to be retained under lease. Mining leases on such selected areas are for terms of 99 years and are renewable. The royalty payable on production of iron-ore products from the leased areas was set at 22¢ per ton.

In consideration of the concession and rights granted, the corporation agreed to pay a rental in each year of the concession period amounting to 8 per cent of the net profits of the corporation as defined by the agreement.

GOVERNMENT—BRITISH NEWFOUNDLAND CORPORATION LIMITED—N. M. ROTHSCHILD AND SONS ACT, 1953 AND AMENDMENTS

This act permitted the company, known as Brinco, to explore and investigate the natural resources of Newfoundland and Labrador for a period of 20 years involving 10,000 square miles in Newfoundland and 50,000 square miles in Labrador. The corporation was required to surrender 3,000 square miles in Newfoundland and 15,000 square miles in Labrador at the end of the first 5-year period. In each subsequent 5-year period the corporation was required to surrender 1,600 square miles in Newfoundland and 8,000 square miles in Labrador.

The corporation was required to spend \$1,250,000 in each 5-year period in the investigation of natural resources.

The corporation was entitled to mining leases within the unsurrendered areas for terms of 99 years which are renewable.

The corporation was required to pay taxes under the Mining Tax Act at a maximum rate of 5 per cent on net profits.

In consideration of the concession and rights granted, the corporation agreed to pay a rental in each year of the concession period amounting to 8 per cent of the net profits of the corporation as defined by the agreement.

GOVERNMENT—BRITISH NEWFOUNDLAND EXPLORATION
LIMITED ACT, 1957 AND AMENDMENTS

This act as amended in 1965 permitted the company, known as Brinex, to explore and exploit minerals for a period of 10 years on one area in Newfoundland and for a period of 4 years on one area in Newfoundland and one in Labrador. The three areas totalled 500 square miles. The company was permitted to select areas of 50, 25 and 20 square miles from each of the areas respectively for issuance of a development licence for a 5-year period under the Crown Lands (Mines and Quarries) Act.

Taxes payable with respect to these areas were those levied under the Mining Tax Act.

NALCO-JAVELIN (MINERAL LANDS) ACT,
1957 AND AMENDMENTS

This act confirmed the transfer of some mining leases from Nalco to Canadian Javelin Limited, and confirmed the agreement between Javelin and prospective lessors. One of the leases is being operated by Wabush Iron Co. Ltd. with Pickands Mather as managing agents.

It also confirmed the royalty payable on production from the leases set at 22¢ per ton of iron-ore products in lieu of taxes otherwise payable under the Mining Tax Act.

NALCO (PARTITION AGREEMENT) ACT, 1964

The act authorized an agreement between Nalco, Knoll Lake Minerals Limited and Canadian Javelin Limited whereby certain mineral rights issued to Nalco and subsequently assigned to Javelin are transferred to Knoll Lake Minerals Limited which is a holding company for Wabush Iron Company Limited.

GOVERNMENT—JAVELIN TAXATION
ACT, 1959 AND AMENDMENTS

The act confirmed agreement with the company to an escalation of royalties payable on iron-ore products in proportion to increases in excess of \$ U.S. 11.70 of the published Lake Erie price for Old Range non-Bessemer ore analyzing 51.5 per cent iron.

GOVERNMENT—A.N.D. COMPANY
LIMITED AND AMERICAN SMELTING
AND REFINING COMPANY ACT
1959 AND AMENDMENT

This act gave the Anglo-Newfoundland Development Company Limited and the American Smelting and Refining Company the exclusive prospecting and exploration rights for 4 years on an area of land which was reduced to 1,000 square miles from a larger area on which exploration rights had been held for a period of 10 years under the A.N.D.—Buchans Company (Exploration and Development) Act, 1949. An area of 200 square miles was required to be surrendered at the end of each of the 4 years.

The companies were required to spend not less than \$25,000 on exploration each year.

The companies were permitted to select areas not exceeding 25 square miles to be

held under mining leases in the form set forth in the 1949 agreement. The term of these leases was 25 years renewable, with rental at the rate of 50¢ per acre.

Taxes levied on production from the leased areas were those imposed under the Mining Tax Act.

ADVOCATE MINES LIMITED ACT,
1959 AND AMENDMENTS

The act granted to the company exclusive prospecting and exploration rights for a period of 10 years to an area of 785 square miles in Newfoundland.

The company was required to spend on work on the reserved area not less than \$1,000,000 by the end of 1960 and not less than \$30,000 per year from 1964 to 1968.

The company was entitled to development licences within the reserved area of not less than one square mile each, totalling not more than 50 square miles. The term of such development licences was 5 years, in the form issued under the Crown Lands (Mines and Quarries) Act, at an annual rental of 50¢ per acre.

Mining leases could be issued for any of the areas covered by the development licences in the form issued under and subject to the conditions of the Crown Lands (Mines and Quarries) Act.

Taxes imposed were those levied under the Mining Tax Act.

GOVERNMENT—THE FLINTKOTE COMPANY—
ATLANTIC GYPSUM LIMITED ACT,
1960 AND AMENDMENT

This act gave the companies the exclusive prospecting and exploration rights for only gypsum in an area of 2,860 square miles located in the southwest part of Newfoundland for a period of 12 years. The reserved area included small areas which were declared to be undeveloped areas with regard to gypsum under the Undeveloped Mineral Areas Act.

The act authorized the issue of one mining lease on an area of 10,940 acres and permitted the company to apply for mining leases with respect to gypsum, on any part of the reserved area. Such leases were to have a term of 99 years renewable and required payment of \$5 for each acre of land to which such leases related.

A royalty of 5¢ per ton was payable on the gypsum produced from the leased areas.

O'BRIEN GOLD MINES LIMITED
ACT, 1963 AND AMENDMENT

The act granted to the company the exclusive prospecting and exploration rights for a period of 4 years to an area of 124 square miles in Newfoundland.

The company was required to spend not less than \$25,000 per year on work in the reserved area.

The company was entitled to development licences within the reserved area not exceeding 10 square miles in total. The term of such development licences was 5 years, in the form issued under the Crown Lands (Mines and Quarries) Act, at an annual rental of 50¢ per acre.

Mining leases could be issued for any of the areas covered by the development licences in the form issued under and subject to the conditions of the Crown Lands (Mines and Quarries) Act.

The company was entitled to stake claims within the reserved area, and such claim areas were then deemed to be outside the reserved area.

Taxes imposed were those levied under the Mining Tax Act.

LEITCH GOLD MINES LIMITED ACT, 1964

The act granted to the company the exclusive prospecting and exploration rights for a period of 3 years on four areas in Newfoundland totalling 1,427 square miles. One of the areas included 476 claims previously staked by agents of the company and by their affiliates. Any part of the claims when transferred to the company was to become a part of the reserved area.

The company was required to spend not less than \$100,000 on the total reserved area within the 3-year period.

The company was entitled to development licences within the reserved area not exceeding 100 square miles in total. The term of such development licences was for a term of 5 years, in the form issued under the Crown Lands (Mines and Quarries) Act, at an annual rental of 50¢ per acre.

Mining leases could be issued for any of the areas covered by the development licences in the form issued under and subject to the conditions of the Crown Lands (Mines and Quarries) Act.

Taxes imposed were those levied under the Mining Tax Act.

GRANDROY MINES LIMITED ACT, 1964

The act granted to the company the exclusive prospecting and exploration rights for a period of 3 years to an area of 179 square miles in Newfoundland.

The company was required to spend not less than \$60,000 on work in the reserved area during the 3-year period.

The company was entitled to development licences within the reserved area not exceeding 25 square miles in total. A development licence was for a term of 5 years, in the form issued under the Crown Lands (Mines and Quarries) Act, at an annual rental of 50¢ per acre.

Mining leases could be issued for any of the areas covered by the development licences in the form issued under and subject to the conditions of the Crown Lands (Mines and Quarries) Act.

Taxes imposed were those levied under the Mining Tax Act.

M. JAMES BOYLEN ACT, 1964

The act granted to M. J. Boylen the exclusive prospecting and exploration rights for a period of 3 years to an area of 854 square miles in Newfoundland.

He was required to spend not less than \$150,000 on work in the reserved area during the three-year period.

He was entitled to development licences within the reserved area not exceeding 100 square miles in total. A development licence was for a term of 5 years, in the form issued under the Crown Lands (Mines and Quarries) Act, at an annual rental of 50¢ per acre.

Mining leases could be issued for any of the areas covered by the development licences in the form issued under and subject to the conditions of the Crown Lands (Mines and Quarries) Act.

Taxes imposed were those levied under the Mining Tax Act.

MOKTA (CANADA) LTÉE ACT, 1964

The act granted to the company the exclusive prospecting and exploration rights for a period of 4 years to three areas in Labrador having a total area of 4,665 square miles.

The area included 101 claims staked by the company under the Crown Lands (Mines and Quarries) Act. If during the exploration period, any of such claims were cancelled, such claim areas were to become a part of the reserved area during its term.

The company was required to spend not less than \$250,000 on work in the reserved area during the four-year period.

The company was entitled to development licences within the reserved area not exceeding 100 square miles in total. A development licence was for a term of 5 years, in the form issued under the Crown Lands (Mines and Quarries) Act, at an annual rental of 50¢ per acre.

Mining leases could be issued for any of the areas covered by the development licences in the form issued under and subject to the conditions of the Crown Lands (Mines and Quarries) Act.

Taxes imposed were those levied under the Mining Tax Act.

Mineral Taxation and Royalties

MINING TAX ACT

The act authorized the imposition of a tax on the net income derived from mining operations within the province at the following rates:

- (a) In the case of iron-ore mines, the rate is 20 per cent, but in no case shall the tax exceed the amount determined if the levy was at the rate of 10¢ per ton on the first 1,500,000 tons and 8¢ per ton on each additional ton of iron ore recovered.
- (b) In the case of all other mines, the rate is 5 per cent. Where the gross income of a company in a year is less than \$5,000 no mining tax is levied.

The net income derived from mining operations is determined by first deducting from gross income items of non-mining income, and subsequently deducting certain allowable expenses.

The items of non-mining income are:

- (a) income from investments,
- (b) income from ventures other than mining, processing and sale of mineral ores, and
- (c) income from mining operations outside the province.

The items which are allowed to be deducted from the balance of the gross income are as follows:

- (a) an allowance with respect to the cost of depreciable assets at a rate determined by the Minister. The current (1966) rate of depreciation is 10 per cent. Depreciable assets include only those used in the production of minerals up to the point of marketing. The cost of a depreciable asset may not include interest charges on the capital cost of the asset.
- (b) an allowance with respect to exploration and preproduction development ex-

penditures incurred by the company within the province. Interest charges are excluded from the allowance. The rate applied is at the discretion of the Minister and related to the estimated life of the mine.

- (c) a processing allowance determined by applying a rate of 8 per cent to the original cost, exclusive of interest, of assets used in the processing of mineral ores. This allowance may not exceed 65 per cent of the taxable net income.
- (d) charitable donations made within the province not exceeding 5 per cent of the net income.
- (e) all other expenses incurred in the production of the gross income, but not including disbursements, not wholly, exclusively and necessarily expended, for the purpose of earning the income.

Appeal from a tax assessment may be made to the Minister within one month of the date of assessment. Appeal from the decision of the Minister may be made to the Supreme Court or to a District Court.

The act does not apply to Labrador Mining and Exploration Company Limited or its subsidiaries.

MINERAL LANDS TAXATION ACT

The act authorizes the taxation of minerals in the ground. Minerals are defined by the act to be hematite. The act has very limited application.

CROWN ROYALTIES ACT

The act is intended to ensure that the value attributed to mineral production, timber and power is fair market value for the purpose of calculating taxable net profits.

CROWN LANDS (MINES AND QUARRIES) ACT

Quarry (Permit) Regulations

A royalty of 5¢ per cubic yard of material removed from Crown lands is levied on quarry materials—limestone, granite, slate, marble, gypsum, peat, marl, clay, sand, gravel, any building stone or volcanic ash.

Operating and Safety Rules

REGULATION OF MINES ACT

The act provides for the making of regulations to govern the operation of mines.

Provision is made in the act for the appointment of a Chief Inspector of Mines and immediate notification to him by operators of all serious accidents.

Mines (Safety of Workmen) Regulations

The regulations set forth the rules to ensure that proper mining practices are followed to give safe working conditions.

Schedule of Fees

CROWN LANDS (MINES AND QUARRIES) ACT

Miner's permit (Individual)	\$10.00
Miner's permit (Company incorporated in Newfoundland)	25.00
Miner's permit (Company incorporated elsewhere in Canada)	50.00
To record a claim	10.00
Development licence	10.00
Annual rental under development licence (per acre)	0.50
Mining lease (per acre)	5.00
Rental mining lease, annually after first two years (per acre)	0.10
Lease of coal, or salt, annual rental (per acre)	5.00
Quarry permit	1.00
Quarry permit rental (per acre)	0.50
Quarry permit, royalty per yard removed	0.05
Quarry lease—rentals as determined by the Lieutenant-Governor in Council.	

Principal Officials

DEPARTMENT OF MINES, AGRICULTURE AND RESOURCES

Minister
Mines Branch
 Deputy Minister
 Chief Engineer
 Director, Mineral Resources
 Chief Inspector of Mines
 Director of Crown Lands and Surveys

Inquiries for detailed information on and requests for copies of the various acts and regulations referred to in this chapter may be directed to the Deputy Minister of Mines, Department of Mines, Agriculture and Resources, St. John's, Newfoundland.

